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ABSTRACT

Focusing on "Associate Degree Nursing--Facilitating Competency Development," a 3-year project sponsored by the Midwest Alliance in Nursing (MAIN) to explore and recommend ways of strengthening Associate Degree Nursing (ADN) education and service, these proceedings contain papers by individuals involved with the development of the project and those who have been involved in implementing competency-based education (CBE) in ADN programs. The proceedings contain: (1) "Background on 'ADN--Facilitating Competency Development' Project," by Barbara J. Lee; (2) "Role of MAIN in the Regional ADN Competencies Project," by Barbara B. Minckley; (3) "The Current State of Affairs: Competency for ADN Graduates in Nursing Service Agencies," by Kate D. Schejbal; (4) "Competency-Based Education as a Curriculum Process," by Mary E. Broderick; (5) "ADN--Past, Present, and Future," by Elsa L. Brown; (6) "Collaboration with Nursing Service to Assure a Smooth Transition of ADN Graduates into Practice," by Charlotte Tracy; and (7) "Collaboration--Among All Levels of Nursing Education and Nurse Employers," by Peggy L. Primm. (AYC)

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Defining Competencies for ADN Education and Practice

Midwest Alliance in Nursing Regional Conference

March 1983

JC 860 411

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DEFINING COMPETENCIES FOR ASSOCIATE DEGREE NURSING EDUCATION AND PRACTICE

Proceedings of the Midwest Regional Conference on "The Associate Degree Nursing - Facilitating Competency Development" project; funded in part by the W. K. Kellogg Foundation
March 10-11, 1983, Chicago, Illinois

Edited by
Barbara B. Minckley, DNSc., FAAN
Executive Director
and
Mary Dale Walters
Public Relations Coordinator

Midwest Alliance in Nursing, Inc.
1226 W. Michigan Street
Rm. 108 BR, Indiana University
Indianapolis, Indiana 46223

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PREFACE

Defining Competencies for Associate Degree Nursing Education and Practice, presented March 10-11, 1983, at the Chicago Hyatt O'Hare, served as a starting point for "Associate Degree Nursing--Facilitating Competency Development," a three-year project sponsored by the Midwest Alliance in Nursing in conjunction with Grand View College, Des Moines, Iowa, and with partial funding by the W. K. Kellogg Foundation.

The project is part of a continuing commitment by the Kellogg Foundation to explore and recommend ways of strengthening Associate Degree Nursing (ADN) education and service.

The focus of the project is on four Demonstration Centers comprised of representatives from service and education. (A fifth team will also consider baccalaureate level competencies as part of the project.) Utilizing the principles of Competency-Based Education (CBE) the teams will collaborate to define competencies for ADN graduates and implement these into curricula and job descriptions.

The speakers at the conference represented both those involved with the development and implementation of the ADN project, as well as those who have implemented CBE in ADN programs and witnessed the results. In addition, an historical perspective of Associate Degree nursing was provided.

Each presentation served as a valuable tool, not only in implementing the project, but also to educators and employers who are concerned with the growing need for collaboration, a definition of the ADN's competencies, and their role in the service setting.

Peggy L. Primm, RN, PhD
Project Director

ACKNOWLEDGEMENTS

The Midwest Alliance in Nursing would like to express sincere thanks for assistance in preparing and reviewing this manuscript to its authors. In addition, Vicki Johnson, Administrative Secretary, was instrumental in helping prepare the material for print.

Funding support from the W. K. Kellogg Foundation, Battle Creek, Michigan, helped bring this conference to ADN educators and employers from all over the Midwest. The subsequent publication of the Proceedings will greatly assist in extending this information to those outside the Midwest region.

The Editors

Abstract of the Associate Degree Nursing - Facilitating Competency Development Project

"Associate Degree Nursing-Facilitating Competency Development" is a three-year project sponsored by the Midwest Alliance in Nursing with partial funding by the W. K. Kellogg Foundation. It is part of a $6.5 grant made to six nursing organizations to address major issues in AD education and its relationship to nursing service.

Peggy L. Primm, RN, PhD, is the project director. Dr. Primm is Head, Division of Nursing, Grand View College, Des Moines, Iowa.

The goals and objectives of the project are as follows:

1. Provide continuing education for ADN faculty, nursing service administrators, and in-service educators of hospitals employing graduates of those programs through intensive work/conferences and on-going project activities.

2. Focus on principles of Competency-Based Education to be applied in pre-service and in-service nursing education, and guide and assist faculty and nursing service in incorporating the principles of CBE in pre-service and in-service teaching of clinical skills.

3. Develop a network of centers demonstrating ADN faculty/nursing service collaboration in the design and delivery of competency-based ADN education and in-service utilization of ADN graduates. This will be accomplished through the planned content and process of the work/conferences attended by the Demonstration Center teams.

4. Assist ADN faculty, nursing service directors, and in-service educators in developing educational programs based on mutually-held expectations of ADN graduates/practice, derived through the consensus-achieving process of the work/conferences and project activities.

5. Promote improved nursing care of patients by the development of ADN education/nursing service consensus on expectations of ADN nursing practice competencies in patient care.

6. Provide national access, through the Midwest Alliance in Nursing, to information regarding the utilization of the principles of CBE in the design of mutually-held expectations for nursing education/nursing practice. This will be accomplished through publications generated by the project such as a syllabus and project reports. MAIN will also participate with similar ADN projects funded by the W. K. Kellogg Foundation in evaluation activities to determine the extent to which each project resolves problems identified in four areas:

   1) insuring competence of faculty in ADN programs.

   2) assuring strong clinical skills of ADN graduates.

   3) improving working relationships between service and education personnel.

   4) improving service-education consensus on expectations for practice-entry competencies of new ADN graduates.

Defining Competencies for ADN Education and Practice
Biographical Sketches of the Speakers

Mary E. Broderick, RN, PhD, is Academic Dean and Director, Educational Development, St. Mary's Junior College, Minneapolis, Minnesota. St. Mary's prepares two-year technical workers for allied health and health-related human service fields.

In addition, she is a faculty member and Graduate Program Advisor in Allied Health Education, College of St. Thomas, St. Paul, Minnesota.

Dr. Broderick often writes and speaks on allied health education and is the author of "Developing Competency-Based Instruction in Health Fields Rationale and Process," and co-author of "A Strategy for Identifying ADN Competencies," Competency-Based Education in Nursing, National League for Nursing Monogram.

Elsa L. Brown, RN, PhD, is Dean, School of Allied Health and Professor of Nursing, Medical College of Ohio, Toledo. In addition, she is President (1981-83) of the National League for Nursing (NLN).

Experienced in ADN curriculum design and administration, Dr. Brown also has worked as Director of Associate Degree Nursing Program Junior College of Connecticut, University of Bridgeport. She was chairperson of the NLN's Council on Associate Degree Programs, and a member of MAIN's ADN Project Advisory Committee.

Barbara J. Lee, RN, MPH, is past Program Director, W. K. Kellogg Foundation, Battle Creek, MI.

A member of MAIN's ADN Project Advisory Committee, she played a key role in initiating the "ADN-Facilitating Competency Development" project while at the Foundation.

Barbara B. Minckley, RN, DNSc., FAAN, is Executive Director, Midwest Alliance in Nursing (MAIN), Indianapolis, Indiana.

Prior to joining MAIN, Dr. Minckley was Project Director, Nurse Faculty Research Development in the Midwest and Associate Professor of Nursing, University of Illinois, Chicago. She also has worked as Assistant Dean for Graduate Programs, and Associate Professor, College of Nursing, University of Utah, Salt Lake City.

Peggy L. Primm, RN, PhD, is Head, Division of Nursing, Grand View College, Des Moines, Iowa. She is also Project Director, "ADN--Facilitating Competency Development."

Prior to Grand View College, Dr. Primm was Assistant Professor, Graduate Program, School of Nursing, University of Missouri, Columbia.

She also has worked as Assistant Professor, Program Development Consultant, University of Illinois, Chicago.

Kate C. Schejbal, RN, PhD, is Vice President--Director of Nursing, St. Joseph's Hospital, Kirkwood, Missouri. In addition, she teaches nurse leadership (undergraduate) and nursing service administration (graduate) at St. Louis University, Missouri.

She also teaches nursing leadership at Maryville College, St. Louis. Prior to St. Joseph's, she was Director of Nursing Education, Jefferson College, Hillsboro, Missouri.

Dr. Schejbal has spoken on a variety of topics including expectations of nursing management, allocation of nursing resources, quality assurance, and nursing research in clinical areas.

Charlotte Tracy, RN, MA, is Director, Nursing Program, St. Mary's Junior College, Minneapolis, Minnesota. In the past at St. Mary's she was Coordinator of Continuing Education, and of Project COHORT.

Prior to St. Mary's, Ms. Tracy held several positions at the Ancker School of Nursing, Saint Paul, Minnesota, including Curriculum Coordinator and Director.

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BACKGROUND ON ADN - FACILITATING COMPETENCY DEVELOPMENT PROJECT

by Barbara J. Lee, RN, MPH

It is a pleasure as past Program Director of the W. K. Kellogg Foundation to provide you with background information on the Foundation's three-year grant to the Midwest Alliance in Nursing (MAIN) and to Grand View College, Des Moines, Iowa, to strengthen Associate Degree Nursing (ADN) education.

Additional grants were made simultaneously to the Western Interstate Council for Higher Education (WICHE) and to the Southern Regional Education Board (SREB) for the same purpose, so that total grant funds amounted to $3,048,446. The overall purpose of all of these grants was to establish a national, coordinated program to strengthen ADN education through regional continuing education programs for working, master's-prepared ADN faculty.

By utilizing a regional approach for this extensive project, it is estimated that 40 states and 595 ADN programs will be involved. While each of the three grantees will employ different approaches to accomplishing the mission of the grant, the overall objectives are the same:

1) assist ADN faculty and nursing service personnel to develop educational programs based on mutually held expectations of the ADN graduate's practice;

2) incorporate the principles of Competency-Based Education into preservice and inservice teaching of clinical skills;

3) develop a network of sites experienced in collaboration of education institutions and nursing services as regional resources; develop a lasting relationship between education and service for preparation and utilization of associate degree nurses; and

4) disseminate project achievements regionally and nationally.

With that brief overview of the Kellogg ADN Project, I would also like to tell you about an earlier Kellogg Foundation project which greatly influenced the Foundation's continuing interest in ADN education.

Between 1957 and 1962 the Kellogg Foundation provided support for a four-state demonstration of ADN program de-

velopment in New York, Florida, Texas, and California. Foundation involvement followed a successful pilot effort of ADN program development in seven community colleges by Dr. Mildred Montag, the prime architect and mover of ADN education. As some might remember, the four-state project was credited with providing national visibility to the ADN concept as well as demonstrating step-by-step program development, including curriculum content.

After this major investment of time and money, it was no wonder that Foundation interest in ADN education persisted through the years. In addition, by the late 1970's AD nursing education programs were graduating the largest number of nurses annually--over 36,000 in the 1977-78 academic year as compared to 25,000 from baccalaureate programs and 15,000 from hospital diploma programs. Unfortunately, these impressive figures were overshadowed somewhat by the problems besetting the ADN education process and the ADN graduate.

In 1979 the Kellogg Foundation convened an ad hoc advisory committee to explore approaches to strengthening the system nationally. The broad issues and concerns identified by the committee were: weak clinical skills of graduates, inadequately prepared faculty, separation of education and service, and lack of a clear definition of expected clinical competencies of graduates.

The Advisory Committee agreed that among these four issues, the most important one was inadequately prepared faculty and, that improving ADN faculties' ability to teach should receive first priority. The second priority issue identified by the committee was to define the expected competencies for the ADN graduate and to be able to test these competencies at the conclusion of the course of study. The absence of clear competencies was and still is a point of confusion among the employers of ADN graduates-- notably hospitals.

The recommendation was made to proceed with programs that would initially strengthen the skills of Associate Degree faculty members already holding master's degrees. Also, continuing education would be the approach and program content for these faculty would focus on ways of improving students' clinical skills, bridging the education service gap, and incorporating Competency-Based Education in the curriculum.

For the Foundation-supported AD project to be successful, it would be necessary for nurse faculty to work closely with service personnel and to establish lasting, co-

operative arrangements with clinical facilities. Also, it was decided that a regional approach would have more impact. As a result, programming was planned through the nursing councils of SREB, WICHE, and MAIN. Each organization was given a planning grant to develop a proposal for Foundation consideration. Ordinarily, the Foundation does not provide planning grants to any organization, but in this case, an exception was made to enable each regional body to bring in educators and nursing service directors to assist in proposal development.

In the meantime, the Foundation was giving favorable consideration to other efforts around the country to strengthen ADN education. In 1978 Ohlone College in Freemont, California received a Kellogg grant to improve the clinical skills of its ADN students and to form a lasting alliance with nursing service agencies. Ohlone included an ongoing evaluation which determined that students were indeed better qualified clinically when exposed to a joint-education service program. The Ohlone experience is presently being prepared for national distribution with additional financial assistance.

In 1980 Ohlone received another grant on behalf of the 64-member California Organization of Associate Degree Nursing Programs to validate the National League for Nursing's competency statements for associate degree graduates. A major objective of the validation process will be to achieve consensus on the clinical performance characteristics of the ADN graduate among California's ADN programs and affiliated hospitals. More appropriate utilization of the AD nurse should occur by bringing education and service together in a working partnership. Also, the Ohlone project provides a state-wide model for ADN programs in other states to examine.

Another Foundation effort on behalf of ADN educators was the national celebration for Associate Degree nurses in 1982 involving all 50 states and territories. Foundation funds supported one and two-day public forums. This project was under the direction of the NLN and the American Association of Junior and Community Colleges.

The last project related to the national effort to strengthen ADN education is the non-traditional graduate nursing education program at the University of Tennessee, Chattanooga, awarded in May, 1982. The purpose of this four-year project, with funding of $2,282,171, is to coordinate the development of non-traditional graduate nursing

education at six demonstration sites throughout the country so they may prepare faculty for ADN programs.

The University of Tennessee project is really the second phase in the national effort to strengthen AD nursing education. The first phase deals with the immediate problem--inadequately prepared faculty presently teaching in ADN programs--with which MAIN, WICHE, and SREB are dealing.

Tennessee is looking at the long range need to prepare Associate Degree faculty properly initially and this involves a major change in the graduate curriculum. For the past 15 years graduate education has focused on clinical specialization with less emphasis on teaching, supervising, and administrating. Therefore, today's graduates at the master's level are superbly prepared in specific clinical areas, but are not prepared to teach or to be competent administrators.

Among Associate Degree educators there is agreement that ADN faculty need to be generalists rather than specialists. The curriculum must also give attention to issues associated with community college education. Accordingly, the University of Tennessee plans to assist six graduate programs to modify their curricula so that functional courses in teaching will be strengthened with emphasis on community college education.

Also, students will be taught to develop a conceptual teaching framework to accommodate the time and content limitations dictated by a two-year program. They will learn to develop skills for differentiating ADN roles as compared to baccalaureate nursing roles.

The six demonstration master's programs will be accessible to students through non-traditional methods, including the development of teaching modules to benefit the working nurse. Eventually, modules will be available at cost to other graduate programs. Student enrollment at each site is projected at 20 per year for three years, with a six program total of 360 students. Six graduate programs have submitted proposals to Kellogg to participate in the Tennessee project, and two have been approved to date.

In conclusion, the Kellogg Foundation grants to strengthen ADN education nationally are:

MAIN & Grand View College, WICHE, and SREB	A three-year grant to provide continuing education for ADN faculty and service personnel ($3,048,446).

Ohlone College on behalf of California's ADN programs	A three-year grant to validate the NLN competency statement and reach consensus on clinical performance characteristics ($1,118,000).
University of Tennessee	A four-year grant to prepare faculty for ADN programs ($2,282,171).
total	$6,448,617.

This is an impressive figure, but I am sure that the impact of these grants will more than justify the expense.

ROLE OF THE MIDWEST ALLIANCE IN NURSING IN THE REGIONAL ASSOCIATE DEGREE NURSING COMPETENCIES PROJECT

By Barbara B. Minckley, DNSc., FAAN

Development of Regional Nursing Connections in the Midwest

Since 1974 and perhaps earlier, Midwest nurses have struggled to form a regional network, without the pre-existence of a supporting interstate consortium of higher education, such as that provided for the Western Interstate Commission for Higher Education and the Southern Regional Education Board.

Early in the 1970's, eight Midwest states formed the Midwestern Council for Professional Education in Nursing (MCPEN) to develop a regional approach to continuing education for nursing.

Also, during this time the deans of nursing schools and nursing service directors of academic health science centers at "Big Ten" universities, met on a regular basis under the sponsorship of the Committee on Institutional Cooperation (CIC). Through these discussions, the nursing deans and directors were able to share developments and ideas, and determine better methods of identifying and using resources for nursing. In particular, the group discussed ways to increase the growth of much needed graduate programs in nursing.

Again at this same time, and with many of the same nurse leaders providing the impetus, three regional proposals were written:

1) A feasibility study for the Midwest Alliance in Nursing (1977-79; USDHHS, Div. of Nursing Grant No. 5 D10 NU02044)

2) The Nurse Faculty Research Development in the Midwest (1978-81; USDHHS, Div. of Nursing Grant No. 5 D10 NU25030)

3) The Midwest Data Base: Doctoral Nursing Resources (1978-80; USDHHS, Div. of Nursing Grant No. 5 D10 NU25029)

Each of these proposed projects had a different intention, but began to become an integral part of the other due to their Midwestern regional scope. All three were funded and implemented between 1977 and 1981.

As project director of the Nurse Faculty Research Development in the Midwest (NFRDM) grant it seemed a natural step to become executive director of the Midwest Alliance in Nursing (MAIN), because the three projects were at all times mutually interactive and supportive.

Through the NFRDM project isolated nurse researchers were able to meet with their research colleagues, discuss the frontiers of research activity in the field, and explore avenues for needed future research. Curricula content and research needs for patient care problems at graduate and particularly, at the doctoral level, were planned in those meetings of doctorally-prepared nurses within their specialty interest groups. Mentorships and group inter-institutional research projects were also implemented.

The interest groups became what are now the individual sections of the Midwest Nursing Research Society (MNRS) a permanent, self-supporting organization of individuals interested in nursing research, and an affiliate of MAIN.

The feasibility study which preceded establishment of the Midwest Alliance in Nursing was conducted by Rozella Schlotfeldt and Judith Wood of Case Western Reserve University's School of Nursing, Cleveland, Ohio. Between 1977 and 1979, they visited each of the thirteen states now contained in MAIN's region and conducted forums to determine what common problems a regional alliance might address. They also studied existing organizational structures to see which should be adopted by this nursing alliance. With great vision, they created a new structure, taking the best ideas of existing compacts and adding new features.

With the help of a five-year grant from the W. K. Kellogg Foundation, MAIN was incorporated as an alliance whose members are nursing service and educational agencies of all types.

Although other organizations expressed an interest in joining MAIN, this was not to be an "organization of organizations" serving the nursing profession, but rather an alliance of nursing education and service agencies collaborating in very practical ways to improve patient care. Thus, every committee and task group in MAIN is composed of half service members and half education members.

Formation of MAIN's Regional Task Group for ADN Planning

It was no surprise that a MAIN Associate Degree Nursing Task Group was formed in 1979-80 to plan a regional

project that would identify, define, and facilitate implementation of ADN competencies. A small grant was awarded to MAIN by the W. K. Kellogg Foundation for a oneyear study of Associate Degree Nursing in the Midwest, and development of a regional plan for facilitating competency development.

As a result of the work done by this task group, and with the assistance of Dr. Peggy Primm, RN, PhD, a regional survey was conducted. The results of this were reported in Future Directions for Associate Degree Nursing in the Midwest, (MAIN, 1981). The survey instrument used had been developed and validated earlier by Dr. Primm. Implications of the findings for service and education were reviewed by Crystal Lange, PhD, and Madeline K. Zaworski, MSN, at a special ADN conference held in November 1980, and subsequently, published in the above mentioned Proceedings. Service and education were deliberately teamed for the first time at that conference and many insights were gained from their discussions.

The survey was one of the first times that service and education had been asked to respond to the same questions about competency expectations. It was discovered the most serious problem to be addressed was the lack of consensus between education and service on what the new ADN graduate could be expected to do, and do safely on entry into practice.

Certain expectations for role functions were shockingly divergent. For example, 80 percent of the schools responding to the survey reported that there was at least one member of their faculty whose highest degree was the ADN. Certainly, no ADN program claims to prepare teachers of nursing, and for nurses prepared at the ADN level, this is an inappropriate responsibility.

As a result, the survey definitely indicated a need to team nursing education with nursing service to develop realistic agreements about the role of AD nurses, expectations for ADN competencies, and the proper focus for facilitating clinical skills. Today's conference represents a formal beginning of these regional efforts with the support of a three-year grant from the W.K. Kellogg Foundation.

The western and southern regions, who pre-existed MAIN by 40 years, also are launching similar projects with similar support from the Kellogg Foundation. For the first

time we are participating in an inter-regional collaborative operation to facilitate Associate Degree Nursing.

Funding for the five demonstration centers associated with the MAIN ADN project will allow education-service teams from each center to plan together for implementation of project objectives. The five demonstration centers are pictured geographically in Figure one. Besides having high quality ADN programs, faculty, and employees, these centers are strategically located to serve areas where most Midwestern ADN programs exist. The number of ADN programs in each state is noted in parentheses, with a current total of 185.

Regional Needs for Associate Degree Nursing Identified

The regional study findings, reported to MAIN member agencies in 1980, led to three areas of understanding:

1) Consensus improvement was needed between service and education on role functions and expectations for entry-level competencies of new ADN graduates. This was agreed to, through a vote by MAIN agency representatives, as first priority.

2) From the survey responses it appeared that current expectations of many service administrators were based on the traditional diploma model for nursing. The reality shock for new graduates created by the transition from school to service and confrontation with professional issues apparently was not a problem in the diploma model.

3) The need for higher educational expectations has been recognized officially by all health provider groups. The minimally-educated nurse is not prepared for, and must not be given, leadership positions in patient care.

The apparent paradox of MAIN's emphasis on teaming of education and service, and a retrospective look at diploma nurse preparation would seem that we once had in the diploma program, a perfect combination of education and service. At closer inspection, however, the opportunity for sound academic growth beyond technical skill development is deficient in that model. The academically-placed nursing education programs of today need the kind of alliance with service settings that MAIN can expedite.

Of course, for all those nurses wishing to advance their professional education, there are many developing options for flexibile "completion" programs giving academic

ADN-Facilitating Competency Development-Map of the 5 Demonstration Centers

Total: 185 ADN Programs

Demonstration Centers

IA - Grand View College, Div. of Nursing Des Moines, Peggy Primm, PhD, Head

Des Moines Area Community College ADN Program, Ankeny, Susan Albrecht, Chairperson

Iowa Lutheran Hospital, Div. Nursing Practice, Des Moines, Joan Roberts, MA, Assoc. Administrator

MO - St. Louis Community College,Meramec ADN Program, St. Louis, Barbara Macy, Chairperson

St. Joseph's Hospital, Kirkwood, Nursing Services, Kirkwood, Kate Schejbal, PhD, Vice Pres.,Dir. of Nursing

OH - Otterbein College, Nursing Program, Westerville, Judy Strayer, PhD, Chairperson

Grant Hospital, Columbus, Karlene Streitenberger, MS, Asst. Exec. Dir.

MI - Henry Ford Comm. College, Nursing Div., Dearborn, Genevieve Czarnecki, Asst. Dir. for Nursing

Harper-Grace Hospitals, Nursing Services, Detroit, Anne Christensen, Corporate Director of Nursing

IN - Indiana Univ. Assoc. Science, Nursing Indianapolis, Margaret Applegate, EdD, Assoc. Dean, ADN Programs

Methodist Hospital of Indiana, Indpls Susan Sheedy, MHA, Vice Pres., Operations.

Figure 1

credit. All of these need more time and testing to determine which are most helpful in preparing professional nurses for the future.

Regional Projections for Future Roles of AD Nurses

In the coming decade many changes are predicted for clinical (primarily, hospital) settings. Hospitals are moving toward mergers and incorporation. The title of vice president now given to many nursing service administrators is a corporate title. Hospitals are incorporating in order to protect assets and to have more flexibility in generating income. The income generated is re-invested in patient care programs and capital improvements.

Also, hospitals have diversified their services, to become multi-hospital systems. With the trend toward increased hospital mergers it is predicted that in 15 years there may only be about 250 hospital organization entities in the country.

Many are developing a large number of outreach programs and services because under-utilization of hospital facilities and competition for patient dollars is intensifying. There is a shift in third party reimbursement toward preventive care, which has caused a reduction in the number of hospital inpatients. These inpatients, however, are much sicker and need much more complex and sophisticated nursing intervention.

How may we prepare the Associate Degree nurse to provide the needed care? First, we have to enlist both service and education in reaching consensus on exactly what skills are needed and at what level of competence. In the short space of two years no one can learn the entire range of clinical skills that may be needed. Careful thought needs to be given to identifying the prime nursing content for a two-year program, based on predicted patient needs.

There must be general support and agreement from service and education agencies, and from State Boards of Nursing/Health, that nurses with two years of preparation should not be assigned to leadership, executive, or teaching positions. AD nurses are not prepared for such roles and must not be inappropriately assigned in a misguided effort to be cost-effective.

The model for nursing service in hospital centers is changing. In the future there will be a system for profit-sharing based on productivity. Nursing needs will be documented, appropriate interventions provided, and outcomes evaluated. Based on these data, income generated through

nursing services can be identified and reimbursed, with subsequent reinvestment of income for capital improvements for patient care services.

MAIN is an essential impetus in closing ranks between education and service. Joint, adjunct, and clinical appointments with nurses qualified in both realms and capable of dividing their time in serving both objectives, will be the rule rather than the exception.

The AD nurse will be supervised by these dual-role professionals, and will, hopefully, benefit from leadership in clinical expertise, and the extention of nursing service personnel as assistants to clinical specialists and nurse practitioners in outreach settings as well as in-patient care agencies.

Robotics and computer systems are becoming more evident and certainly will increase their presence in all manner of routinized operations in health care as in every other facet of our lives. Computerization is increasing and health care and preventive aspects of health teaching will be conveyed to the public by way of home video. As a result, health care providers will become more intensely competitive.

We, as nurses aware of changing trends, need to learn not to compete with one another over relative values of educational programs, but rather to make the whole of nursing more expert in patient care by using every resource available to us.

MAIN's activities are steadfastly focused on the goal of improved patient care. We will work toward making nursing more professsional with greater depth of understanding and devotion to excellence, and motivating ourselves and others to develop all the talents we have in professional service.

In the coming decade we will be released from legal constraints in the trend toward supportive legislation for reimbursement for nursing services. More work needs to be done to define and obtain consensus for the scope of nursing practice and the price of specific units of nursing service. The underlying axiom is that nursing is a needed, revenue-generating service requiring expert, clinically-skilled practitioners.

The preparation and utilization of the AD nurse will rely on the collaborative work of nurse leaders in service

and education to prepare a curriculum and design practice preceptorships that will allow the new graduate to develop the capacity to care, to value, and to share mutual respect for professional objectives.

The new graduate will be motivated to re-enter the educational system, as appropriate, to advance her or his professional career. MAIN is working to unify professional objectives of service and education with each supplying a different yet essential component in preparing nurses to give better patient care now and in the future.

As many nursing organizations are giving attention to the reports of the National Commission on Nursing and Institute of Medicine reports, MAIN will be planning regionally to implement some of these high-priority recommendations, one of which is the development of nursing leadership for improved care.

All our present types of nurses are an equally important health care resource, although each may have a somewhat different future ahead. Nevertheless, there is no obstacle in the path of the individual nurse who wants to advance to higher levels of proficiency by a variety of routes. MAIN supports improved, academically sound educational programs to prepare nurses as shown by MAIN's support of the National Credentialling Task Force recommendations. MAIN wishes to see less duplication of nursing faculties, less overlap of educational programs, and a more clear-cut educational product whose competencies and skills have been determined through consensus of service and education, based on patient needs.

As we begin this project to develop competencies of Associate Degree nurses, our goals are:

1) consensus between service and education on expectations for entry-level Associate Degree nurses;

2) demonstrate pride in achievement of competencies;

3) rewards for excellence in hospitalized patient care;

4) support for excellence in hospitalized patient care;

5) integrity in collaborative planning within MAIN and with our cooperating liaison organizations; and

6) addressing some of the problems identified in the national studies of nursing and nursing education;

MAIN assigns priority value to the teamed efforts of service and education through whose work in this project we are exploring uncharted waters. We are confident that with these partnerships, we can effectively improve patient care in our region.

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THE CURRENT STATE OF AFFAIRS: COMPETENCY FOR ADN GRADUATES IN NURSING SERVICE AGENCIES

by Kate D. Schejbal, RN, PhD

My comments will include a brief historical perspective, a description of conflicts between education and practice, what the world of nursing is like today, the new ADN graduate, studies in relation to this graduate, a model of practice for nursing service, and conclusions and recommendations.

Since much of what we do during and after this conference is based on the theory of collaboration by ADN faculty and nursing service, I would like to share with you a few thoughts from Ashleigh Brilliant, taken from his book, "I May Not Be Totally Perfect, But Parts of Me Are Excellent (1980).

Brilliant Thought 1 - I'll listen to your unreasonable demands if you'll consider my unacceptable offer.

Brilliant Thought 2 - But everytime I try to see things your way, I get a headache.

Brilliant Thought 3 - What good is it if I talk flowers while you're thinking in pastry?

Brilliant Thought 4 - I'll pretend to trust you, if you'll pretend to trust me.

Brilliant Thought 5 - I can forgive you for being wrong, but it's much harder to forgive you for being right.

Brilliant Thought 6 - Don't shoot! We may both be on the same side. (I suspect that this Brilliant Thought is the one that we ought to keep in mind.)

Historical Perspective

In order to understand today, we must look at yesterday. The relationship between health care institutions and health education institutions has evolved and has been molded by professional and societal demands and pressures.

Nursing education was almost exclusively hospital-based until after the 1940's, and as the primary employers of nurses, hospitals assumed the responsibility for nurses. As you all know, much of this hospital-based education consisted of clinical nursing practice where students spent long hours attending patients and performing other rou-

tines. There was concern and great criticism with regard to this arrangement which concentrated on the hospital's needs to the detriment of the student's personal and academic needs. Review of the literature reveals that hospitals with as few as 30 beds started schools of nursing in an effort to obtain cheap student nurse labor.

Many of us who were products of the hospital-based education can say that we were prepared well for staff nursing at the conclusion of this process. However, we paid a big price. We still have psychic scars from a prolonged adolescence in a convent-like setting. We suffered indignities as women and as nurses.

As early as 1923 Goldmark noted in her study of hospital-based schools of nursing that the average hospital training school did not conform to the standards accepted in other educational fields, and the structure and instruction was frequently casual and uncorrelated.

During the 1950's, professional nursing organizations and nurses themselves were attempting to move nursing education into colleges and universities. Needless to say, there was great resistance by some nurses, physicians, and certainly, the hospital administrators. In the last half of the decade, however, there was a tremendous growth in community colleges throughout the nation. In 1958 there were 35 associate degree programs. In 1963 there were 102; in 1968, 325 programs. In 1970 there were over 700.

Nursing education followed the trends in society by basing schools in collegiate settings, but all did not go well. There were internal problems, including unavailability of qualified faculty, financial constraints, and student needs and preferences for programs with a basic, general education. When general education courses finally were incorporated into the curriculum, it increased the expenses of hospital schools and reduced the counter-balancing effects of rendered services.

In the 1960's, we saw the continued development of nursing programs in colleges and universities. The Nurse Training Act provided federal funds for buildings and initiated and developed programs for nursing education. Pressures from professional nursing organizations grew. The cost of faculty, housing, and other learning resources steadily increased in the hospital-based nursing programs. Finally, by the early 1970's may nursing education programs had moved from the hospital setting to the collegiate or university setting.

Brilliant Thought 7 - It Was All So Different Before Everything Changed

Many factors led to the separation of nursing service and nursing education: trends in society, student demands for educational experiences that would transfer, the push of professional organizations, the inception of the Associate Degree Nursing (ADN) program in 1952, the womens' movement, economics, expansion of knowledge, and the nature of health care facilities.

As the gap between nursing education and nursing service grew, we saw significant changes which led to problems. Curran and Metcalf (1983) illustrated the interdependence of health care agencies and educational institutions. On the one hand, hospitals depend on colleges for nurses who are systematically-prepared according to recognized standards and also, for continuing development of nurses already in practice.

Colleges for their part need hospitals to demonstrate role models for their students, to provide practical learning experiences in patient care, and ultimately, to employ their graduates.

Clinical affiliation between the two sets of institutions commonly have become a system for channeling this mutual dependence. Curran and Metcalf go on to indicate that the manner in which these affiliations have been conducted has given rise to many conflicts without providing adequate means for their resolution. Clinical nurses complain that their academic counterparts have become isolated from the day-to-day realities of practice. They accuse instructors of educating their students for an ideal role rather than a real nursing role.

Instructors retort that nursing service personnel resist innovation in solving the many problems and fail to take creative initiatives. Thus, rather than joining forces to further the common interest of their profession, nurses from the two settings waste their strength and resources on mutual criticism. This only broadens their physical separation into an intellectual and social separation.

Clinical nursing instruction carried out on the hospital units should to be a prime area where nursing service and nursing education can demonstrate an obvious interdependence to the nursing student. Instead, it becomes a battleground where contending interests clash. Although there are many different arrangements, usually a faculty member/instructor supervises a group of students on a par-

ticular nursing unit. As educational budgets have grown tighter, however, the number of students for which each faculty member is responsible has increased.

At the same time, the amount of time allotted to instruction grows ever more limited. Under such constraints the faculty member usually finds little time to form helpful relationships with the unit personnel, and more frequently, asks for help to instruct and supervise the students.

Also, the instructor may concentrate attention on the patients he/she chooses for the students. Deliberately or inadvertently, she may criticize the staff or the nursing care unit. In response, service personnel may come to regard the faculty member as a parasite who exploits both the setting and its already busy personnel. An atmosphere of tension can develop which greatly compounds the usual problems of instructing students.

In addition, say Curran and Metcalf, matters are made even more complicated, separation of nursing education and nursing service has led to duplicating and specializing human resources.

Conflicts often involve complaints by nursing service that faculties "take and take", but rarely ask what they can put back into the institution. Faculty may display attitudes of superiority, when nursing staff feel that they should be privileged just to have a nursing school affiliation.

Another area of concern is that the faculty places a great deal of supervisory responsibility for nursing students on the head nurse or team nurses on the units. In defense of the faculty, some faculty members may not wish to intrude or are reluctant to volunteer suggestions for changing nursing practice because they may be viewed as trouble-makers and risk losing the clinical affiliation altogether.

Conflict also occurs when staff nurses may resent the intrusion of students on their busy units. They do not want to take time to answer questions and resent the added responsibility of overseeing the students' work. The students seldom have time in abbreviated affiliations to thoroughly understand policies and procedures of a particular institution. Just as they are becoming familiar with the routine, the affiliation ends and they are off to another agency.

Another source of conflict is the inability of nursing service personnel to understand the role of the educator personnel, and the educators inability to understand the role of the nursing service person. Nursing staff seem to feel that the educator has a rather soft job. They know that the educators are off on weekends, holidays, and possibly summers, while they have a continuous work experience with limited vacations. Faculty members, on the other hand, often envy staff nurses who go home after eight hours without papers to grade and lesson plans to write.

The conflicts and hostilities between service and education filter down to the student and consequently, he/she is perplexed. The student, who thought he/she entered a caring profession, instead finds two forces in apparent direct opposition. Our conflicts and misunderstandings are deep-seated and numerous, yet the need for collaboration is so great.

Brilliant Thought 8 - Please Don't Tell Me To Relax; It's Only My Tension That's Holding Me Together

The new graduate frequently suffers frustration, discouragement, fatigue, and loss of self esteem. In addition, he/she discovers that the values and expectations learned as a student are often different from those of the hospital in which he/she is employed. The nursing literature over the last 10 years has identified many problems faced by new graduates. More than 24 articles describe a variety of transitional programs for new graduates from 1972 to 1980. And more than 30 speak to the reality shock of the graduate.

In a Nursing Research article by Lois Nelson (1978), a survey was conducted of new graduates with regard to their perception of their competency, technical communication, and administrative skills. Also, they were judged on supervisors' perceptions of their overall competency. Nelson's survey sought to determine if competencies held by the products of the three educational programs viewed themselves as did their supervisors in these areas.

The results indicated that baccalaureate students rated themselves higher than did the diploma and ADN in overall competency. In technical skills, the diploma students felt that they were prepared better than others. The baccalaureate students felt that they were prepared better in communication, and diploma students felt that they were superior in administrative skills.

As for the supervisory interpretation, they indicated that the baccalaureate student was superior to the other groups in overall competencies, technical skills, communicative skills, and administrative skills.

The biggest discrepancy came from what the diploma students felt they could achieve and what supervisors, in fact, saw them achieving. Nelson's conclusion was that since nursing graduates and supervisors perceived graduates' degree of competency differently, schools of nursing and agencies that employ beginning practitioners should consult with each other concerning realistic expectations of the various levels of competency. She also found that diploma graduates had a bigger perception of their overall competency in technical, communicative, and administrative skills than did baccalaureate and associate degree graduates.

Also, noted was that the greatest differences in perception were found to exist between the diploma graduates and their immediate supervisors. The ideal outcome, of course, would be to have little or no difference between the perceptions of the graduates' competency and the supervisor's perception of their competency. In addition, it was noted that the supervisors saw the baccalaureate graduates with the highest overall competency in technical, communicative, and administrative skills, but the baccalaureate graduate did not perceive themselves in this manner.

Throughout various studies conducted from 1970 to 1978, more preparation, technical skills, and practical experience were needs expressed by both graduates and their employers. In a follow-up study conducted in Michigan in 1972, associate degree students were found to have serious deficiencies in communication and judgement. In a study of four ADN programs in Texas, it was felt that there was insufficient practical, on-the-job experience during the basic program, and that lack of proper supervision, especially in the initial positions of employment, was a matter of concern to the newly employed ADN graduates.

A study by Wescot (1981) in Washington, D.C. revealed the gaps between service expectations and educational goals were considerable; so great, in fact, that the differences seemed to be without solution unless sufficient changes occurred in both nursing service and education.

Nelson also stated that lack of agreement between nurses on the distinction and levels of nursing practice of graduates from three types of educational programs, has led to confusion in educational programs that prepare these

practitioners and in the employing agencies that provide the means for achieving nursing care goals.

Mary Ann Sweeney et al (1980) conducted studies to identify skills the registered nurse should have to be considered a safe beginning practitioner. This included the areas of manual skills, legal knowledge, interpersonal skills, and teaching skills.

It was interesting, though, to see the results of what various individuals within the health care facility expected of new graduates. For example, the head nurse felt that the greatest emphasis should be on manual skills; they saw this being the most important function. Physicians, on the other hand, indicated that the most important thing was that the new graduate should be able to perform effectively in emergency and stress situations. The patients wanted someone who could give them emotional support.

Ford (1980) indicated that philosophical differences can be found in the diversity of the mission between the educational institution and the service agency. She further stated that the educational system prepares a person for a life of learning with emphasis on cognitive and affective processes, rather than on techniques.

The service agency is primarily concerned with technical and organizational competencies in an environment where technical competencies are still used as the criteria for success. These competencies include skills involved with safety, organization, direct and rapid problem solving during an emergency, care for a variety of patients, responsibility, cooperation, and immediate intervention behavior.

Throughout the surveys it was found that individuals in service agencies agreed that new graduates were deficient in technical skills and that educational institutions, especially in associate degree and baccalaureate programs, must again emphasize clinical skills and competencies to enable new graduates to provide basic nursing care.

The Sweeney survey was very interesting in that a list of 291 psychomotor skills were suggested for inclusion within a curriculum, and were considered by both faculty and nursing service to determine which were essential.

Of the 291 psychomotor skills, 94 (or 32 percent) were rated as essential by the faculty while nursing service designated 213 (or 74 percent) of the entire list as essential. Other interesting findings were that the list of

skills viewed as essential by faculty and nonessential by nursing service was quite small. However, nursing service viewed many more skills as essential than did the faculty. Both groups did agree on 91 psychomotor skills that were essential for every nursing student to learn prior to graduation.

In conclusion, Sweeney indicated that for approximately half the skills on the original list, the faculty and nursing service personnel achieved no consensus as to whether nursing students should learn the skills. Sweeney felt that her findings highlighted the controversy continually documented between schools of nursing and hospitals regarding the acquisition and practice of psychomotor skills.

McCloskey (1983) did a multiple regression study to determine whether nurses with different educational preparation were different in job effectiveness. In this study, practical nurses, associate degree nurses, and baccalaureate nurses were surveyed along with their supervisors. The conclusion was that ADNs were rated somewhat better than practical nurses and just as good as diploma and baccalaureate nurses. McCloskey did stress, however, that the study did not consider the level or the type of work because the nurses were rated on their current job performance in a hospital setting.

She also found that teaching, collaboration, planning, evaluation, and leadership skills received lower ratings in all nurse groups. This could mean that either these skills were performed poorly, or that hospital nursing has experienced a decrease in demand for these types of skills.

In reality, the associate degree graduate is considered to be a professional nurse and is held accountable for the same responsibilities as practitioners from diploma and baccalaureate programs. The expectations of nursing service for performance by associate degree graduates is, at this time, the same as for any other graduate. Hopefully, we will be able to re-define our job descriptions and the nature of the work to accommodate the differences in educational preparation.

In conclusion, literature and our own personal experiences have indicated there is a wide discrepancy between competencies as viewed by education and service. We would also certainly agree that the reality shock for the new graduate is great and that the gap between service and education needs to be bridged.

Today

What kind of world do the new ADN graduates enter into at the conclusion of their educational process? The majority of ADN's work in hospitals, and hospitals are in deep trouble. The rapid growth in technology has produced innumerable machines with innumerale capabilities. Complex electronic equipment no longer is confined to specialty units, and computers are becoming more and more common.

In addition, hospitals today are plagued by tremendous economic problems. There are decreased dollars for orientation, but orientation for new graduates has increased in time and cost. There are decreased dollars for educational programs for instructors, inservices, and seminars. The rules and regulations of the Tax Equity and Fiscal Responsibility Act (TEFRA) have put caps on operational expansion. There will be less money for annual pay increases and fringe benefits. In many institutions, fringe benefits already are being cut back. And the one area in which this cutback is most noticeable is in tuition reimbursement.

Another aspect of hospital nursing today is the specialization in nursing which parallels the specialization in medicine. The knowledge base in each of the specialties has grown to such a considerable degree that there is far less flexibility. And the concept of "a nurse is a nurse, is a nurse," simply is not true. It's impossible to move a nurse from an orthopedic area into labor and delivery. It's very difficult to take a nurse from a general medical/surgical floor and put her in an intensive care unit.

Elaborate patient classification systems have become necessary in order to categorize the acuity of patients. In the past, patients were viewed as "very sick," "sick," or "getting better." Today, they are rated on a scale with numerous factors considered. Also, we find that the client we service in hospitals is a much more knowledgeable health care consumer. This consumer wants faster and better service, and expects miracles will be performed as portrayed in the media.

The so-called support services have grown in complexity. They're headed by individuals with master's degrees who have many machines at their disposal. They are the revenue producing cost centers within our hospitals. Also, there has been a tremendous growth of for-profit hospitals. The for-profit hospitals are taking away the paying

customer and the not-for-profit hospitals are left with a growing number of patients who cannot pay for services. In all probability, it will come down to two standards of care based on how much the patient can pay.

The escalation of cost shifting is now being addressed by many of the third party payers. Coalitions have been established, and they are calling for strict accountability of hospital charges. The economic realities are that many community hospitals will not be able to survive the next five to ten years.

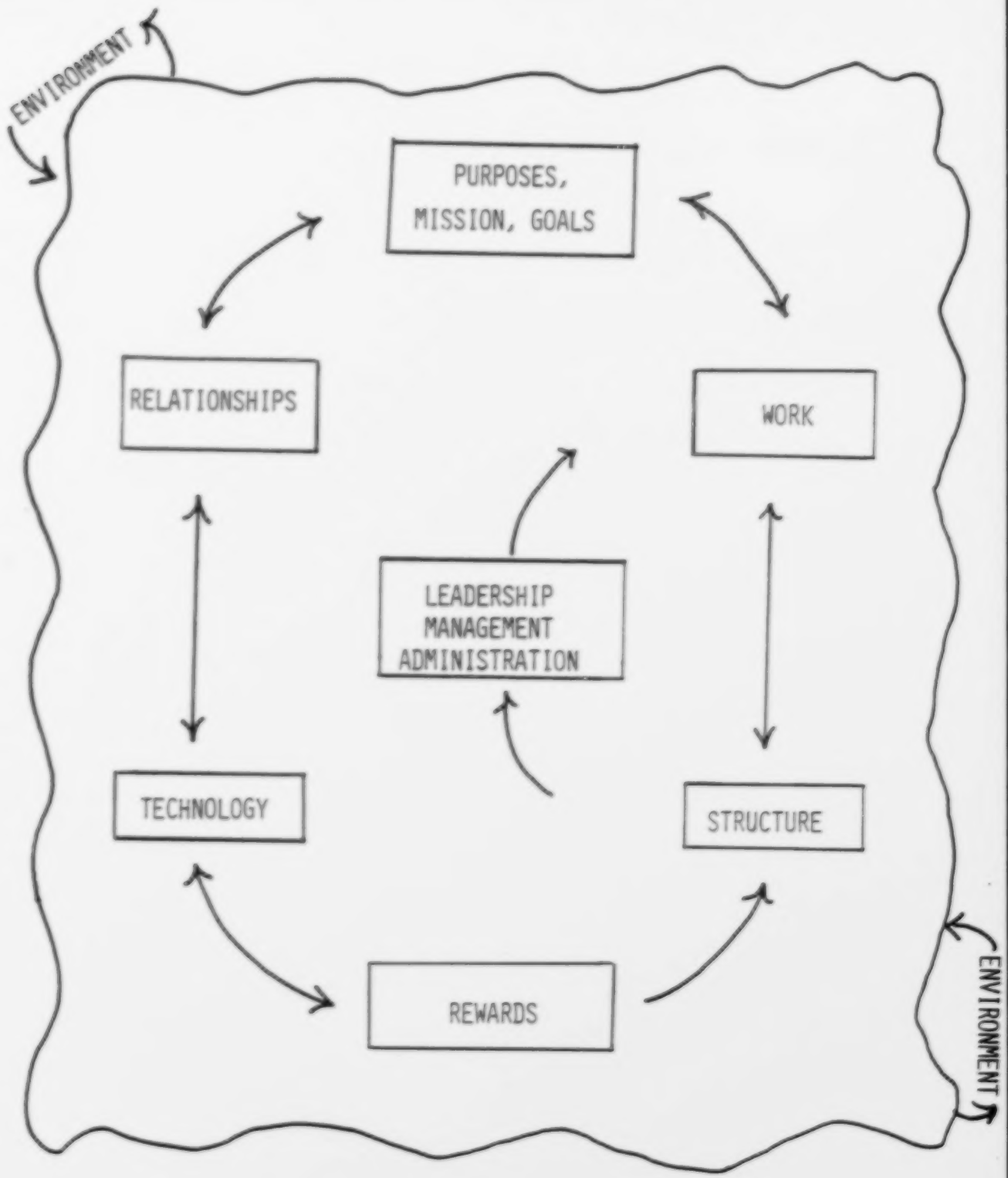
The Weisbord-Schaefer Model

In an effort to see the problems of associate degree graduates fitting into the current health care system, I want to share with you the conceptual model that is utilized by our Nursing Service Department. The model that we have adopted is the Weisbord-Schaefer Model (Schaefer, 1975). Originally, the model was known as a six-box model for managing complexity and was designed by Marvin Weisbord. It was an outgrowth of his experiences as manager and consultant, and was used to diagnose what he refers to as the gap between "what is" and "what ought to be," and to make better predictions about action steps to be taken in closing the gap. (Figure 2).

However, Marguerite Schaefer, former dean of the University of Pittsburgh School of Nursing, refined the model as a conceptual framework for the design of graduate courses in organizational theory and principles of management. She also used this in her consulting work. The model can be utilized in many different ways. It can be applied to academic settings as well as practical settings and it can be used to apply to a whole department or to an individual unit. It even can be applied to an individual human life.

Thus, it can be used as a management tool, a diagnostic tool, a teaching tool, or a service tool. The components in the model are simple, and yet like any model, it has the virtue of simplicity and the vice of omission. All boxes are impacted by the environment and each box can be positively or negatively affected by others.

In the first box is the Purpose of the Mission and Philosophy. In this area, we think about what the mission statement is. What is the philosophy? Here we state our business. This is a guidepost which shows where we are going. It's a need to define what we're all about. It states the direction in which we are headed.



Developed by Marvin Weisbord
Modified by M. J. Schaeffer

Organizational Research and Development
Copyright 1974

Figure 2
26

The next component is that of Work: work is both a noun--a product, impersonal, a thing--and its results are measured by the impact on clients. Work is also a verb -- working, activity done by the human worker. You can hire a hand, but the whole human comes with it.

The worker has physiological, psychological, and community needs. The dimensions of working involve accountability, deadlines, and results. We should be able to analyze the work process itself. What are its critical elements? What does it take to churn it out? How do we organize its sequence? What are the individual parts? We must also consider work control. Where are the standards? They should be appropriate and they should give direction. They should state the level of quality and quantity. They should plan for exceptions. Under the area of work, we should be able to have a task analysis, job descriptions, and standards of practice.

Structure is also included. Structure flows from the work. The division of work departments in the organization are mentioned here. Under structure you must also consider how you assign duties, grant authority, create obligations, and organize who does each task. The tasks are the work to be done - to be accomplished in an organization. These tasks must emerge from clear-cut goal statements. In structure we would consider the organizational chart.

Brilliant Thought 9 - All I Ask is a Chance to Prove That Money Can't Make Me Happy.

The next component of the Weisbord-Schaefer Model is that of Rewards--job satisfaction, power, achievement, and career opportunities. Is the accomplishment of an important task rewarded by filling individual needs for affiliation, power, and achievement? Rewards deal with money, fringe benefits, tuition reimbursement, Christmas parties, and picnics, among other things. Mostly, it deals with the psychological paychecks, the sense of activity using one's talents and the feeling of being able to make a difference.

The next section concerns Technology--the things that facilitate the work of an organization. Here we have communications of all sorts, techniques, skills, processes, policies and procedures, and equipment. With every piece of equipment we have new liabilities, more data to which we react.

We are up to our ears in computer printouts. Technology must be controlled through standards and we know that the staff needs to participate in the development of these standards. Technology can work against us--can stifle our creativity. If in the dead summer days of not so many years ago we had contributed all of our efforts on building a bigger and better iron lung, a man such as Jonas Salk would not have been able to share his vision.

Another is the component of the model is Relationships--people to people, peer to peer, subordinate to boss, registered nurse to doctor, registered nurse to administrator. The registered nurse to doctor relationship is difficult at best. The predicted physician glut will adversely affect nursing practice in terms of curtailing extended roles of nurse practitioners, and trying to reclaim functions and responsibilities now accepted by nursing.

There is also the relationship of units--nursing service to the lab, nursing service to radiology, and nursing service to all other departments in the hospital.

Finally, there is the relationship of people to their technology--for example, the relationship of registered nurses to education. We know that people have trouble with each other, with peers, bosses, and subordinates. We know that people have trouble with groups and there may be interdepartmental strife. We know that people have trouble with equipment and systems. And when we look at relationships, we also have to consider conflict management.

In the center of the model is the Leader. It is the unique role of the person who has the responsibility for constantly scanning both the internal and external environment, and for assessing the gap between what is and what should to be. The leader can be distinguished by an attribute which many call "vision." Vision is that quality of being out in front before anyone else with ideas and dreams of where the organization should be going. The leader takes risk and others along with her. She knows that settling for certainty never moves an organization closer to the dream.

Surrounding the model in a broken line is the Environment. The environment can and does influence each box. Changes in any box can cause alterations in the environment. Factors in the environment which affect nursing service are the economy, TEFRA, Diagnosis Related Groups (DRGs), schools of nursing and their products, patient

population (if we have an increase in the age of the population in our service area, then we will have a decreased need for obstetrical services), as seasonal changes. Individual units are affected by the environment.

Looking at the Weisbord-Schaefer Model as applied to nursing service departments, can we select the component parts of the model where the new ADN graduate might have difficulty? If we select certain areas of difficulty, can we plan, through collaboration with nursing service and nursing education, to alleviate some of those potential difficulties?

Is the purpose of the institution put forth in clear mission statements, or does the organization give voice to a philosophy that it does not implement?

Is the nature of the work that which the new graduate has learned ideally as a student, or is the nature of the work more task-oriented?

Is there really time to teach and to support? Are the expectations of the job clearly presented? Are provisions made for the student to learn additional tasks that are necessary in the position? Are the competencies that are necessary for the work clearly defined in the job description? Will the evaluation criteria be presented prior to the work experience?

Is the structure clearly defined in the organizational chart? Are the lines of communication and authority clearly defined? Will the reward system be adequate? Can self confidence be built and promoted? Will strokes be given? What type of behavior will be rewarded? Are there advancement opportunities?

Technology -- do new grads have the adequate skills to perform the task? Are policies and procedures clear and concise? Are communication systems adequately utilized?

Relationships -- will veteran nurses be supportive of new nurses? Can new practitioners exercise courage with physicians? Will nurse aides be intimidating? Is there some understanding with regard to the issues of conflict

management? Do nurses truly manage patient care or do support services manage nurses? Where and who are the human resources for the novice? Are preceptors available?

Leadership -- what seasoning, experience, and direction are necessary to incorporate decision making and judgement, set priorities, delegate problem solving, organize responsible use of power, monitor, and evaluate?

The Environment -- is there awareness of the implications of events in the environment and their impact on health care organizations?

CONCLUSION

A. Nursing has evolved from a common setting into two distinct systems--yet service organizations employ academia's product.

B. ADNs, as well as other graduates, face reality shock as they enter the work force. It will be difficult to conform work to ADNs--baccalaureate and diploma graduates will also need to be components.

C. Hospitals have become extremely complex organizations in the midst of a legalistic society and severe financial constraints.

D. Financial concerns of hospitals will further reduce the allocation of monies and manpower for orientation and inservice.

E. The gap between nursing service and nursing education must be closed. This can only happen if both groups come to consensus on expectations for practice.

F. Competency-Based Education needs to be followed by competency-based inservice and competency-based evaluations.

G. It will be difficult but not impossible.

H. The last Brilliant Thought: I find it easier to be a result of the past, than a cause of the future. If we want to solve our dilemmas we must be a cause for the future.

Recommendations

The task before us is one of reconciliation. I'm sure that many concrete, specific recommendations will flow from this conference. I'm also sure that many of these recommendations will be very hard to implement.

Basic to the work of reconciliation is mutual respect. All of us in nursing have unique talents and have developed expertise. Some are experts in the art and science of management; some are master teachers; others are skilled clinicians. All of us at some time in our life elected to enter the nursing profession because we are sensitive, caring people. We need to extend that sensitivity and compassion to one another; and to be reminded of our original commitment to the patient entrusted to our care.

Is it possible during this conference to lower our defenses, risk being vulnerable, and seek nurturing from each other?

Some years ago I was introduced to a poem entitled, "High Flight," by my brother, Dave, a Captain in the U.S. Air Force. Dave was a squadrom commander during the Vietnam conflict and died at the age of 28 when his plane crashed. This poem was a creed with pilots in the Air Force. Dave described the feelings of exhilaration as a pilot takes his craft into the sky. The constraints and frustration of earthly existence are shed as the pilot ascends and soars away.

The poem begins. "Oh I have slipped the surly bonds of earth and danced the skies on laughter-silvered wings.

For a little while, we have the opportunity to slip the surly bonds and to think, work, and plan together about the issues that separate us and how we can affect reconciliation for the benefit of the student who, in turn greatly affects the patients.

Sometimes those surly bonds tie us down and prevent creative thoughts. Most of us are very busy people, we spend so much time putting out fires we fail to plan for tomorrow.

"Oh I have slipped the surly bonds of earth and danced the skies on laughter-silvered wings."

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COMPETENCY-BASED EDUCATION AS A CURRICULUM PROCESS

by Mary Broderick, RN, PhD

Let me take you back to an incident which crystalized for me the need for a competency-based approach to curriculum design for Associate Degree Nursing (ADN). I did not know about competency-based instruction then, but for the first time I saw clearly the problem for which it was the solution.

It was about ten years ago. I was sitting on a stage with my faculty colleagues watching the graduates pass before us to receive their diplomas. As the stream of 150 nursing graduates came by, I fell into a game of sorts with another nursing faculty member who was seated next to me.

In reference to a particular graduate, I would whisper to her, "I wouldn't want him/her taking care of me."

She would pick out someone about whom she felt the same way; then I, in turn, another. Through the group we went, ticking off our spur-of-the-moment evaluations. We were sorting out the graduates who we thought were not ready for practice from those who were. In fact, we were identifying which of them were competent.

Shorty after that graduation ceremony, I was struck with the guilty recollection. At first, I was disturbed only by the flippant ways in which I had behaved. I had acted as if I had no responsibility for how the graduates had turned out, and as if the fact that some of them were clearly not ready for practice was of no concern to me. I had pronounced them unsatisfactory even as they were handed their diplomas. The diploma, of course, would open the way for them into the licensing exams and then, into practice.

Even more disturbing than my own behavior, was the realization that two experienced nursing faculty members recognized their instruction did not do the job. Indirectly, we were saying that <u>our</u> program was sending graduates into practice who were not ready for practice. We were saying our program was not entirely effective.

As I reviewed the incident in my mind, I began to see that it was not a simple case of the program being ineffective or the students being incapable. It resulted from a complex interplay of factors, some of them unique to St. Mary's Junior College (SMJC).

St. Mary's is a private, two-year college which has the single mission to prepare technical level workers for employment in health and health-related fields. Currently,

we have programs in Medical Laboratory Technician, Medical Records Technician, Health Care Interpreter, Nursing, Occupational Therapy Assistant, Physical Therapist Assistant, Respiratory Therapist, Special Education Associate, and Chemical Dependency Family Treatment.

We place a special emphasis on providing access to health career preparation for persons who would not normally have such opportunities, including the academically disadvantaged, the physically handicapped, and minorities. We have always had an almost open-door admission policy. Counseling services, tutoring services, and the special teaching skills of the faculty work together to do whatever is possible to help the student achieve success.

Prior to our inception of Competency-Based Education (CBE) approaches, we found ourselves in the bind created by our mission. We experienced conflicting pressures to give disadvantaged students every opportunity, and at the same time, produce graduates who could pass the credentialling examinations and be accepted for employment.

These pressures were never more intense than when we gathered at the end of the quarter for our meeting on grades. In nursing, the students were given a final examination score, to which we added quiz and mid-quarter grades, points from skills tests, and scores on clinical papers. We would spread the total score for each student on a range and then draw grade lines. This was an inexact procedure which did not discriminate between clinical and classroom performance. Our criteria for setting grade cut-off points were a mixture of normative curve and intuition, plus a strong dose of who could argue the best for whether 82 percent should be a "B" or a "C."

Always, we were subject to the temptation to set the cut off point a little lower to fold in the lowest group and let them pass.

It was within this context that the concept of a competency-based curriculum first attracted interest, where we developed and validated descriptions of competence, and ultimately wrote and implemented a competency-based curricula for nursing and for all of our other programs.

The Ideas of Competence and Competency-Based Curriculum

First, I will talk about the theories and concepts which formed our adoption of a Competency-Based approach. Secondly, I will review the processes St. Mary's used to develop and validate a description of competence, and

finally, the steps involved in going from a description of competence to a competency-based curriculum.

Initially, I was exposed to the concepts of competence and competency-based curriculum in an instructional design course at the University of Minnesota. My original purpose for enrolling was to learn how to design clinical simulations. At that time, the College was experiencing a shortage of clinical sites in a number of programs and I was assigned the task of creating several clinical simulations. The idea was that simulations might eventually substitute for some clinical experience.

The instructor for the course, Dr. Russell Burris, was deeply involved in designing computerized simulations for the fields of medicine and law. This lead him and his associates to propose the Theory of Clinical Expertise.

The theory's premise is that the experts in a given field possess a field-specific set of cognitive capabilities which can be mapped or blueprinted. These can be consciously transferred to novices by means of an instructional process which is built on the specified map or blueprint of expertise. By means of the instructional process, novices are changed into experts, at least beginning experts (i.e. the novices develop the cognitive capabilities of experts as a result of the instructional process).

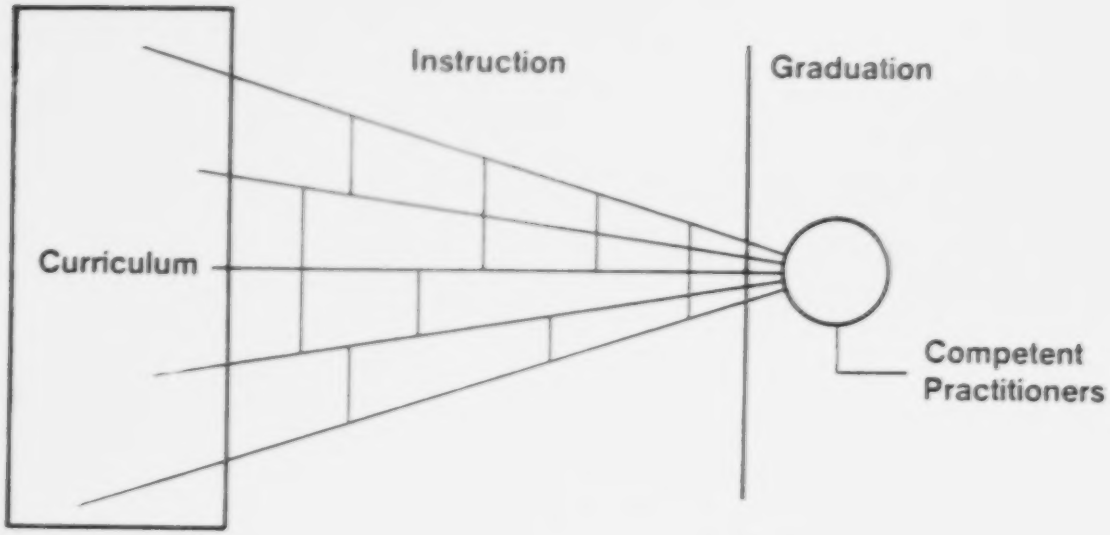
Drawing on this theory, one would first describe the capabilities of the experts in the particular field. The description of competence then becomes the map, blueprint, or curriculum, specifying how the instruction is to be ordered and arranged to develop the capabilities as described.

This idea was an intriguing one for me. After I had mulled it over for a time, I was better able to state the main problem we had in nursing and in our other programs. It was the same problem I had first sensed that evening of student graduation, now two years past.

The problem was the instructional process, as specified in our curriculum, did not deliberately and conciously lead to the development of expertise or competence. Granted, we were giving the student most, if not all, of the essential parts and pieces, and we were making attempts to relate the parts and pieces to each other and to the clinical setting (Figure 3).

What we lacked, however, was a clear vision of the end-point toward which we were building. We did not see

I. Competency-Based Curriculum



II. Traditional Curriculum

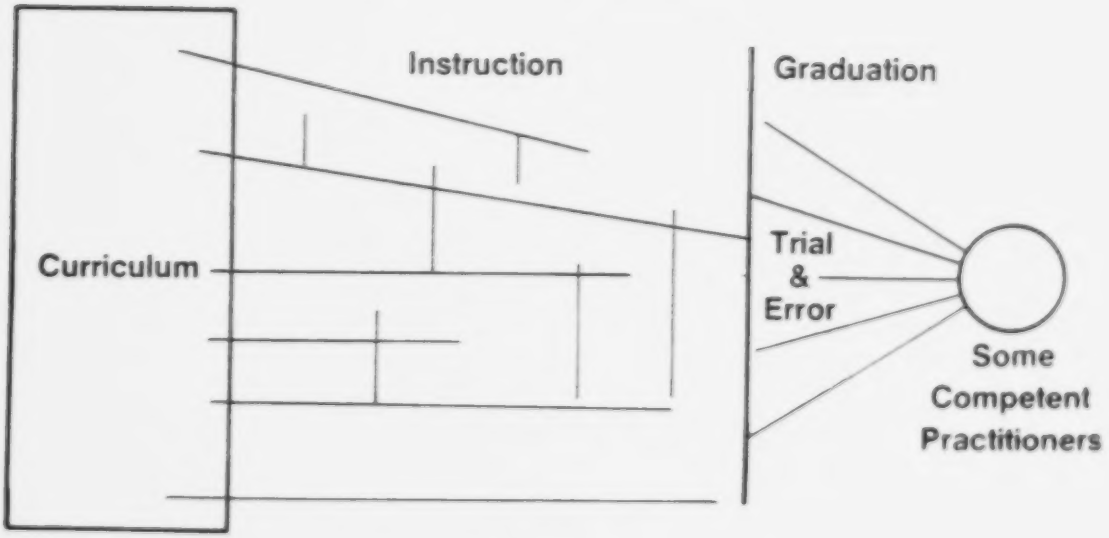


Figure 3

the full range of capabilities we were attempting to develop in the students, and did not see how these capabilities were related to each other.

Our awareness of where we were going with the instructional process and to what end we were aiming, was quite dim. The end was mixed up with our conceptual framework (one based on Maslow's Hierarchy of Needs), the problem solving process, behavioral objectives, and our final integrative clinical course.

Since we were unclear about the end result, and about the inter-relationships of content and skills inherent in that end, our students were left to a considerable amount of trial and error learning. They were left to determine how one unit fit with another and how all parts came together in clinical practice. Because the opportunities for trial and error learning, as well as ability to learn from the method, varied considerably from student to student, we should have expected that not all of them would be ready for clinical practice upon graduation.

By contrast, at least according to the Theory of Clinical Expertise, when the end-point is clearly described and understood, there is a rational basis for: what should and should not be included in the curriculum, what should be emphasized and interrelated in instruction, how instruction should be sequenced, what should be evaluated formatively and summarily, and when evaluations should be carried out.

At this early stage of exposure to the CBE approach, I was taken with the possibility that well-grounded answers to difficult questions were a possibility: When to schedule clinical experience, how much clinical is necessary, and which patient conditions should receive extensive coverage?

As the faculty discussed the notion of competence, apart from its curricular associations, we identified five dimensions or aspects of a competent clinical performance. These were: the competent or expert practitioner's information base or knowledge base; his/her repertoire of behavioral skills; his/her decision-making or information processing skills; his/her professional values; and the clinical environment in which he/she operates.

According to our evolving understanding, these dimensions of competence are in a state of constant and dynamic interaction as the competent practitioner deals with whatever is presented by the complex and changing clinical en-

vironment. The clinical environment arranges itself into some common or predictable configurations and recurring clinical situations which are quite similar to each other. Also, we realized the range of common clinical situations encountered in a given health field, can be mapped and described.

Suppose, for example, you have a competent ADN graduate. She presently is encountering a clinical situation in which a hospitalized male post-surgical client is indicating a need to get up to urinate. Her observations and the communication are fed into her central nervous system where related information is triggered. Depending on the specific stimuli encountered, related information might likely include the activity level advised for the type of surgery, and the amount of activity possible for this particular client, the post-operative day, the time of the client's last voiding, recent pain, and medication.

In the information processing or decision-making phase, information coming in from the external clinical situation (groggy, weak) and information already present within the nurse (type of surgery, number of days or house post-operative) are related to each other. On some level the competent nurse is asking herself questions such as: Is this client strong enough to get to the bathroom? Am I strong enough to support him if he can't navigate? Will getting up disturb wounds, sutures, or tubes?

As the information is processed she decides that it is safe and appropriate for the client to get up to go to the bathroom with assistance, and that she is capable of providing the assistance. Then she acts. She raises the head of the bed, has the client sit on the edge of the bed briefly to get his balance, and walks with him to the bathroom, her arm around his waist for support. This all happens instantaneously. We can observe only the client situation and the nurse's responses.

The information she selects out of the clinical environment to attend to, the stored information she activates, and the questions she asks herself as she relates the information with that which is stored, can only be tapped indirectly via inferences of outside observers and her own self-reports.

To reiterate, we identified both the dimensions of competent performance capability and the way in which these dimensions interact in the clinical setting. Before going

on to discuss the understanding of competent clinical performance to describe competence, let me share with you the perspectives of a number of other investigators and how these perspectives influenced our work.

The literature suggests that there are three major tactics or approaches for arriving at a description of competent performances capability: behavioral approaches, sociological approaches, and cognitive approaches.

Behavioral Approach

The behavioral approach to a description of competence begins with the premise that observed competent behavior demonstrates all related and subsumed knowledge and the skills have been learned. In other words, if the practitioner is performing well, all the necessary information and skills have been learned and are incorporated in the person's behavioral repertoire.

Descriptions of competence from this premise are generated by observing and describing the behavior of competent clinicians as they perform. Known as task analysis, this approach generates long lists of very specific behaviors, which are then collapsed into fewer and larger categories or classes of performance behavior. For example, the American Physical Therapy Association statement of a broad area of performance behavior, "Implement gait training," includes or subsumes many less complex behaviors. For example, there is assessment of the patient's mobility, strength, coordination and endurance, and identification and utilization of appropriate assistant devices.

Sociological Approach

The sociological approach to a description of competence starts with the premise that the situational context, in this case the clinical setting, defines what a person who functions in that content is to do, and what functions are more important than others. Descriptions of competence which proceed from this premise start with identification of typical client situations in the particular field.

These situations, once validated by practitioners as representative of and comprehensive for the field, are written up as archetypal situations. For example, one of perhaps 20 such situations in the field of dietetics is the practitioner instructing the newly-diagnosed diabetic client. The archetypal scenario for this situation is constructed from a composite of client records. The scenario then is analyzed for its component parts and the knowledge

and skills essential for that part are listed in great detail.

In the above scenario, knowledge essential for the practitioner would include understanding of the basic four food groups, the exchange system, and cultural factors. Skills would include interviewing and teaching. All scenarios are broken down in this way.

The long lists of knowledge and skills are then collapsed to eliminate duplications from scenario to scenario. he result is a list of all knowledge and skills necessary for functioning competently in the field.

Cognitive Approach

The cognitive approach to the description of competence, one already alluded to, rests on the premise that the competent practitioner has imbedded in his or her brain, the cognitive structure of information processing/decision-making capability which is specific to the field, and which makes it possible to solve any problem presented.

This is comparable to the expert speaker of a specific language having a cognitive structure of "generative grammar" which makes it possible to understand or respond to any words or combination of words presented in that language. The cognitive structure or information processing/decision-making strategies of the competent practitioner are inferred from observations of competent practitioners in action, and from self-reports of the practitioner in much the same way as the grammatical structures of unfamiliar languages are deciphered.

Our dimensions of competence were extracted from these theoretical referents. Behavioral approaches suggest the behavioral skill repertoire as a dimension of competence. Cognitive approaches suggest information processing/decision-making strategies as a dimension of competence. Sociological approaches suggest the dimension of the clinical environment in which the competent performance occurs. All indicate an underlying knowledge base. None suggests a values dimension. The values dimension is one which was added due to insights gained as we developed a competency-based approach in our Medical Records Technician Program.

Developing a Valid Description of Competence

With these insights and knowledge, it seemed easy to move into actually describing competence. We began with the objective of arriving at as complete a description of competence as was possible. We wanted a picture of the be-

havioral skills of the competent AD nurse, all of the information which the AD nurse needed to carry around inside his/her mind, the information processing/decision-making mechanism and the rules for its operation, the values whch were intertwined with this decision-making ability, and finally, the common recurring client situations which an AD nurse in our part of the country commonly confronts in daily work. A grandiose goal? Yes, and one which we were only partially able to achieve.

We were able to describe the behavioral skills, develop a comprehensive view of the commonly recurring client situations, and infer what the rules of the information process/decision-making process are for competent ADNs.

We did not attempt to specify the bits and pieces of the information base needed for competent performance. Work on the other dimensions left us with a pretty good idea of what factual knowledge and behavioral skills had to be taught. And we did not attempt to specify the values of the competent AD nurse, because this was an uncharted territory, as large as competence description, and one we just couldn't handle at the time.

The process St. Mary's used for deriving and validating AD nursing competencies consisted of three parts. In Part A, we described the practice setting, typical patients, and conditions encountered in the practice setting.

In Part B we described and validated the required and desired performance behaviors of AD nurses. In Part C, we derived and verified a beginning description of the rules for information processing and decision-making. The result informed and served as the basis for our revised competency-based curriculum or blueprint.

In Part A of the process for describing the situational dimension of competence, we drew upon sociological approaches. We attempted to answer the following questions: Which types of agencies most commonly employ the AD nurse? What client/patient problems are most commonly dealt with by AD nurses in these settings?

The plan was to use data regarding the primary settings for AD nursing practice in determining which AD nurses we would select for participation in Parts B and C. In revising the curriculum, data gleaned in Part A were helpful in determining specific content and skills, for selecting representative client/patient conditions for study,

specifying clinical assignments, and for selecting clinical sites.

Data from a 1974 University of Minnesota study were used to ascertain the most common settings for AD nurse employment. The study gathered information on employment and education from a geographically-stratified sample of all nurses registered to practice in Minnesota. These data were considered along with follow-up data on SMJC nursing graduates. Findings revealed that the majority of Minnesota's AD nurses were employed in hospitals and nursing homes. In light of the findings, all remaining activities in the competency-identification plan were focused on hospitals and nursing homes.

A sample of 69 institutions was selected to determine common patient problems encountered by ADNs. Each agency was sent a questionnaire seeking information on utilization of AD nurses within the agency, including the departments to which they were assigned and types of client problems presented to them. This information, coupled with Professional Standards Review Organizations (PRSO) data on the most common admitting diagnoses, gave us a picture of what patient/client conditions graduates would be expected to deal with in practice.

In Part B of the process, which was to describe the behavioral dimension of competence, we drew upon behavioral referents. We attempted to determine: What performance behaviors must the competent entry-level ADN be able to demonstrate? What additional performance behaviors would be desirable for the competent ADN to have? What expectations do employees have for AD level performance?

The intent was to use the data to determine which specific clinical skills to teach, and which skills must be learned and interrelated prior to their application in the clinical setting. Also, we planned to deduce, from the performance behaviors of competent AD nurses, a considerable amount of the information base which was essential for competent practice.

Employers from each of the 69 institutions where AD nurses were employed, as identified in Part A, were asked to forward the job descriptions for their AD nurses. In addition, we asked the immediate supervisors to identify the singularly competent AD nurses in these same settings. Criteria for selection of competent AD nurses were: 1) level of educational preparation no higher than AD; 2) one to ten years of experience as an AD nurse; and 3) reputation for being especially competent.

Thirty participants were selected. They each completed a "description of practice" questionnaire in which they listed the skills they used in six major categories; patient care, management, communication, education, secretarial, and professional growth. The categories were chosen from the job descriptions supplied by the employers.

After the questionnaires were returned and the results aggregated, the AD nurses identified as competent were brought to the College in a series of six panel discussions. The AD nurses were distributed in six separate panels of three to five members, with each panel representing an area of practice as specified by employers under Part A. Panels represented medical-surgical, child- maternal, intensive care, leadership, geriatrics, and mental health.

During the panel session, the AD nurses were given the results of the questionnaires in which skills were listed, and were asked to identify: those behaviors necessary for a competent entry level ADN; behaviors desireable, but not mandatory; and behaviors that can be learned on the job by the ADN.

After the panel session, the specific behaviors were consolidated into more general statements describing competence. Participants were asked at a later date to review the list for representativeness to practice, and it was revised again after their review.

In Part C of our process for describing the cognitive or information processing/decision-making aspects of competence, we drew upon cognitive referents. We attempted to determine: What is the competent AD level nurse attempting to accomplish in every nurse-patient situation? What are the common questions a competent AD level nurse regularly asks in any nurse-patient situation? How is a competent AD-level nurse differentiated from an incompetent one?

Our plan was to use data regarding information processing/decision-making by competent AD nurses to guide us in teaching these same processes to students. We also hoped to gain insight into how to better organize lower level knowledge and skills into patterns which more closely approximate how they are related in clinical practice. Finally, we thought data on this dimension of competence would help us to more directly measure a student's ability to relate previously-learned facts and skills to the actual patient or client in the clinical setting.

A panel consisting of four AD-level nurses, one director of nursing, and one nurse clinician was convened. Two of the AD nurse panel members were identified in the original survey of agencies (Part A). The remaining panel members were recommended by the St. Mary's Junior College Nursing Advisory Committee members who knew the AD nurses to be exceptionally competent.

The nurse clinician and the director of nursing were recommended on the basis of their long-term work associations with AD level nurses. Panel members represented geriatric, psychiatric, coronary care, urology, and medical-surgical practice areas.

The panel met with two facilitators for approximately six hours. After the project was explained, members were asked to reflect on and describe what thoughts and thought processes go on in a competent AD nurse's mind as nursing activities are carried out. To prompt discussion, the facilitators suggested that the panel contrast "good" AD level performance to "unsatisfactory" performance. This process was purposely not structured, and the facilitators, who acted as recorders, encouraged discussion without interjecting their own ideas.

During the lunch break, one facilitator summarized the morning conversation and wrote a statement describing the composite view of what the AD nurse does in every patient situation. Panel members critiqued the statements which, after further refinement, were accepted as an accurate and valid summary of the group's thinking.

The panel then was asked to identify the questions that competent AD level nurses commonly ask (of others and of themselves) as they practice. Questions were identified and validated along with the overall statement of competence by submitting them for review to the group of ADNs identified in Part B.

The results of Part C led to a description of what the competent AD nurse attempts to accomplish in every patient/client interaction, how the environment is manipulated for the benefit of the patient/client, and a list of questions which competent AD nurses ask themselves (at less than a conscious level) as they proceed through any patient/client interaction.

The result of all of this activity with regard to St. Mary's, the employers, AD nurses, and other panel participants, was a comprehensive description of three of the five dimensions of competence which we had identified from the literature and our own work.

We then knew the types of clinical settings in which our graduates were employed, the kinds of patient problems they handled in those settings, and the behavioral performance expectations (the skills they were expected to call forth in practice).

Also, we had begun to understand the information processing/decision-making strategies ADNs have had to employ in order to be successful in clinical practice. For the first time, the faculty had a clear and fairly complete picture of what capabilities had to be developed in St. Mary's graduates.

The next task was to refine the description of competence into a blueprint (curriculum) that would specify the process of instruction, and in turn, would develop the described capabilities in our students.

Developing the Curriculum From the Competency Statements

To understand the process of making the transition to a competency-based curriculum, it may be helpful to know the format of the previous curriculum.

That curriculum was organized around Maslow's Hierarchy of Needs. In the first courses, the student was introduced to the concept of a needs hierarchy and Maslow's need categories: physiological needs, psychological safety needs, love-belonging needs, self-esteem needs, and self-actualization needs.

The physiological needs category, was broken down into the specific needs: comfort, rest and sleep, exercise, nutrition, fluids and elimination, and sexuality.

Nursing actions, to support the patient's satisfaction of his/her basic needs, were addressed in the introductory courses. Bathing, for example, was taught in the unit on comfort. Later courses flowed from the concept that a person's ability to satisfy his/her basic needs could be threatened. Specific kinds of "threats" were considered under each basic need; for example, gastro-intestinal problems and associated nursing care such as nasogastric suction, and tube-feeding were considered in a Threats to Nutrition unit. In the final course, Integration of Basic Needs, all of the needs were considered together.

Obviously, the curriculum was fairly well-organized. In some respects, it was difficult to even consider disrupting it in favor of a competency-based approach. In other respects, the transition appeared as an answer to the

concerns we had about the ability of our graduates to perform in practice. What we intuitively (if not consciously) realized was that the "basic needs" framework, was most effective in focusing student attention and concern on the patient/client, but did not adequately address the development of nursing care skills and their appropriate application within the dynamic clinical situation.

We went through a number of steps in converting the curriculum to a competency-based approach. First, the entire faculty became familiar with all aspects of the description of competence. Of particular interest were the patient/client conditions which had been identified in our region, and the specific nursing procedures which were being done routinely by practicing AD nurses. During this phase, insight developed on how the focus of the curriculum would be shifted from its primary emphasis on understanding the client's/patient's needs to performing satisfactorily as an AD nurse.

As the process got underway, it became clear that we would have to determine the major curriculum organizer, or in other words, what element or elements would form the structure for the courses. Were we to continue with "basic needs" as the organizer? Would we use the competency statements as organizers similar to what had been done in Medical Records Technician and Respiratory Therapy programs? Would we use the major areas of practice, such as medical, or surgical? Or, would new organizers emerge?

To understand the options, we listed what we called "features" and then sought consensus on which features should be included and which eliminted.

In retrospect I cannot recall all of the features which we considered. I do recall which were selected: the "basic needs" framework, problem-solving emphasis, emphasis on all age groups, final clinical performance testing, and greater flexibility of offerings to allow students to more easily repeat courses.

After consensus was obtained, we had to specify how all of the features would be melded into a competency-based approach, and finally, we had to determine the organizing elements.

By this time, it was clear that we would not use the description of competence as the organizer. In nursing, the range of clinical situations encountered is much broader and much more diverse than is the range in Medical Records Technician and Respiratory Therapy. Our description

of competence reflected this. It was written at a more general level and did not specify areas of performance. Contrasted to Respiratory Therapy, where a whole course was organized around the performance behavior, "Perform IPB therapy," we could not organize a whole course around the much more general nursing performance behavior, "Operates specialized equipment."

After further discussion, it was decided to use the "basic needs" hierarchy as the major organizer. Common client conditions were grouped under each "need" area and then aligned with those competency statements or aspects of competence which could be developed in reference to the particular client/patient conditions. For example, competency statements, "Administers prevention measures," and "Administers rehabilitation measures," were aligned with the organizer, "Exercise need." Specific content and skills as specified by the client/patient conditions and the competency statements were then aligned under the organizer "Exercise need." The steps of the nursing process were used as sub-organizers to further categorize the content and skills.

Specific courses, instructional methods, evaluative strategies, administrative procedures, and course syllabi evolved along with the curriculum structure. To keep practical considerations in mind during this phase, we identified the constraints within which we had to plan both the curriculum and the instructional system. These included: accreditation and State Board requirements, the college educational policies, general education prerequisites, required program courses, number of students enrolled in nursing, guidelines for faculty workload, the established minimum student to faculty ratio, availability of clinical sites, needed audio-visual support, space and scheduling options, equipment and supplies budget, and administrative support staff.

The final curriculum structure emerged during the development process as we moved back and forth from our description of competence, the list of features we intended to include, our former curriculum, and the situational constraints.

It consists of three levels, each of which brings the student closer to competent performance capability. The introductory courses focus on development of those areas of competence which cut across all or most client/patient situations: communicating with clients, charting, body mechanics, and assessment.

In the first course, Role of the Nurse, efforts are made to help the student see what a nurse is expected to do in practice. The intent is to create a picture of the end result for the student so the reasons for and approaches to subsequent learning could be comprehended readily. The hope is that the student will be able to observe his/her own progress in developing competence, a process that had not been possible previously.

Second level courses deal with more specific client problems and more specific nursing care skills. For example, the course, Nursing Process: Fluid Balance and Renal Elimination, reviews the problem for which intravenous therapy is instituted, and the nursing skills for administering intravenous therapy.

Third level courses, which are primarily clinical, focus on integration of first and second level learnings in the clinical settings, including the specialized areas of childbearing and mental illness.

The final course, Integration of the Nursing Role, an intensive clinical course, focuses on preparing for transition to the graduate role.

Conclusion

The process of moving from a conceptual-based curriculum to a competency-based one left us with many new learnings. We were freed from our conceptual framework. Instead of teaching and testing on the "basic needs" framework, we were teaching and testing on the dimensions of competent performance capability. We became more concerned about nursing practice; on what nursing practice is at the current moment and on what practice expects of our graduate.

Our own expectation that practice adapt to our graduates lessened. Our linear conception of the problem solving process changed; we began to view it as process in constant dynamic interaction. We were able to explain to our own satisfaction, and much more often to the satisfaction of students, the reasons for what we were doing and for what we had included in the instruction.

As for me, graduation ceremonies no longer evoke doubts about the capabilities of our graduates. Instead, I feel assured that each one is ready for practice because each one has come through a competency-based approach. Many other faculty members share this feeling with me.

ASSOCIATE DEGREE NURSING: PAST, PRESENT AND FUTURE

by Elsa Brown, R.N., Ph.D.

No historical review of Associate Degree nursing should occur without first saluting the nurse educator, Dr. Mildred Montag, whose doctoral dissertation, The Education of Nursing Technicians, (Montag, 1956) provided the foundation for a five-year cooperative research project financed by the American Association of Junior and Community Colleges (AAJCC), the National League for Nursing (NLN), Division of Nursing of Teachers' College at Columbia University, and an anonymous donor, over the years 1952 to 1956. Today, Mildred Montag stands with the great leaders in American nursing history for introducing a philosophical concept whose time indeed had come.

The planning, implementing, and evaluating of technical programs in nursing are the only nursing curricula which have been developed through active research. Nevertheless, these programs have been the most discussed and debated curricula since 1873 when students were admitted to one of the first three formalized schools of nursing in the United States.

From the eight original research project programs in 1952, to the more than 743 programs in existence today, the eloquent philosophical statement made by Dr. Louise McManus (Montag, 1959) in the preface to Montag's research project report, has proved McManus's outstanding vision.

She wrote, "No innovation in the system of education for nursing, since the introduction of organized instruction to augment apprenticeship training, has had the far-reaching influence that the project discussed in this report is likely to exert."

Associate Degree programs during 1981 graduated 36,034 nurses, or 49.6 percent of the Registered Nurse (RN) supply for that year. (NLN, 1981). Zero to approximately 50 percent of initial RN production in a short span of 30 years is a fact, and each of you must be recognized for the tremendous role you have played in accomplishing this.

Montag theorized that nursing knowledge and skills are based on a continuum or a spectrum classified as vocational, technical, and professional (See Figure 4). It is within the technical area of competence that the first level of RN nurse practice or patient-side nursing in secondary institutions, nursing homes, clinics, and selected community health agencies has a unique role.

NURSING FUNCTIONS ON A CONTINUUM OR SPECTRUM RANGE

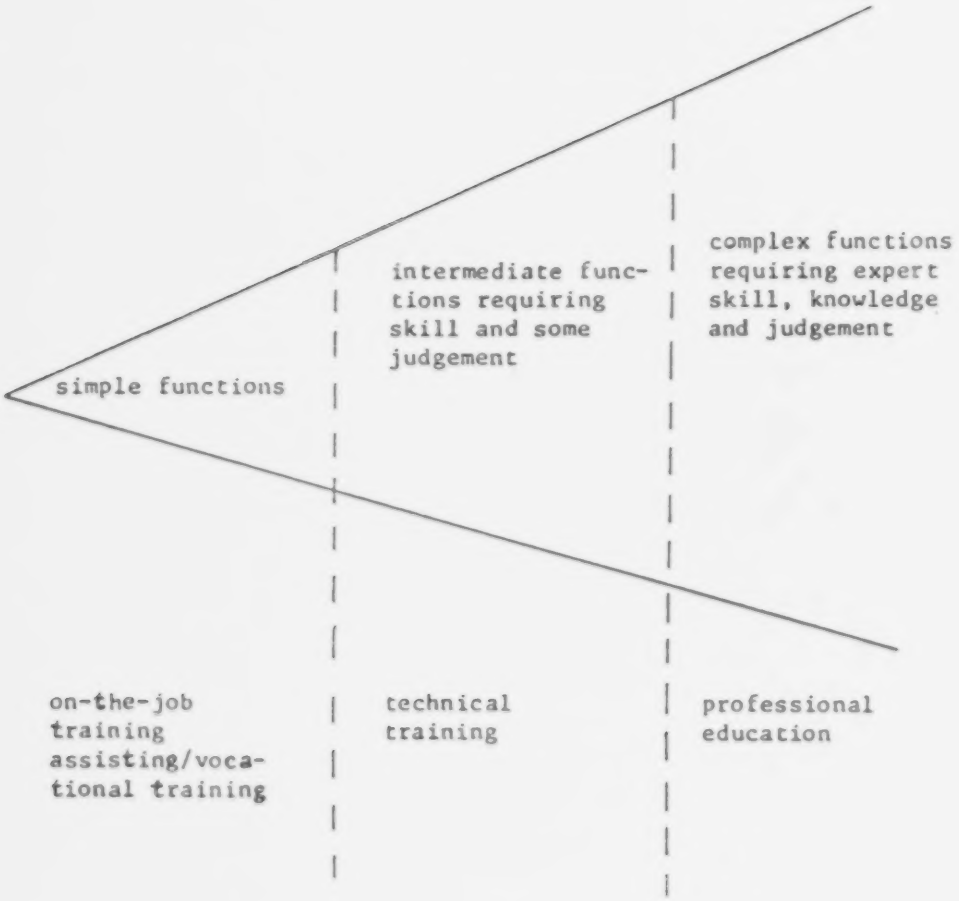

simple functions
intermediate functions requiring skill and some judgement
complex functions requiring expert skill, knowledge and judgement
on-the-job training assisting/vocational training
technical training
professional education

Figure 4

Furthermore, Montag claimed for proper nursing utilization, the tasks of the professional and technical workers could and should have been different. Differentiation of tasks evolved through curriculum planning. More importantly, however, the differentiation of tasks had to be transferred to the service arena. At present, we recognize this is lacking. Montag has stated that her error was in not differentiating tasks at the time of her original research.

Today, following thirty years of curricula design and production, the nursing profession has neither the unity --meaning objectivity, collaborative effort, nor the courage to accept this concept. Or, one might question, should nursing services to clients or patients in all care settings for all levels of wellness and illness use just one type of educated practitioner?

As a citizen and consumer I must also ask at what price or cost? In quality nursing, there is a technical and professional framework for registered nursing within the wide span of the occupation, and which as registered nurses, comprises the largest single force of health care workers in the United States.

The growth of associate nursing has been phenomenal, and Associate Degree nursing program growth follows the growth of the community college movement in the United States. Eighty-nine percent of ADN programs are in the public sector. According to the National Center for Educational Statistics, over 515,000 Associate Degrees were awarded in the United States in 1979. Fifty-three percent of that number were awarded to women, and 68 percent of the total number of degrees were awarded in occupational programs. Health services are the third largest segment of occupation programs in community colleges. Health programs are outstripped by business technology programs, and data processing (Community and Junior College Journal, 1982).

Thus, the two-year college sector is, indeed, meeting its service commitments to the communities in which they serve. More importantly, however, our community colleges have opened opportunities for advancement in learning for all. Associate nursing programs historically admit more men and minorities than other type programs leading to RN licensure.

Associate nursing programs, and the fine accomplishments of college administrators, nursing faculty, and nursing students also should be recognized for paving a way for the more than 8,000 allied health technology programs now housed in two-year colleges in the U.S.

As the 1960's brought rapid growth to the community colleges and ADN programs, an emergence of college administrators and nurse leaders in ADN programming was seen: Skaggs, Clark, and Koch of AACJC: and nurse leaders, Matheney, DeChow, Griffen, White, Perlmutter, Geigy, and many others.

No history of ADN education would be complete without acknowledging the tremendous support of the W. K. Kellogg Foundation in the four-state ADN project, developed in New York, Florida, Texas, and California. This includes Kellogg support of the external degree program of the New York State Board of Regents, and the grant jointly sponsored by the AACJC and the NLN's Council of Associate Degree Nursing, which commemorates the 30 years of progress in ADN education.

Also, during the 1960's new liaisons were established with the AACJC and state community college leaders. An independent Council for Associate Nursing Programs was established within the NLN framework. Much discussion during the 1960's at national meetings of the Council and of the AACJC, concerned the need versus the non-need for a separate ADN accreditation process by the NLN.

Today, more than 374 programs are nationally accredited (NLN, 1981). Also, important to the movement's growth were the contributions to the literature for current and future professional students of this concept.

The following topics indicate current issues which reflect on any competency research and should be pursued continually by nurse faculty, higher education administrators, advisory committees, and service agencies.

To begin, there is the curriculum framework in quarter hours, semester hours, or the length of a program. The original research showed six of the eight experimental programs using one or two summer sessions to a maximum of 81 semester hours, or ninety-four and one-half quarter hours for those college-based programs. Thirty years later, 50 percent of the two-year Associate Degree nursing programs are completed within the framework of two academic years. Many programs totally overload the students in these four academic semesters.

A research project to evolve a competency-based curriculum could not be more timely. As Davidson (1981) points out, the job performance expected of the ADN graduate in the average work place is totally unrealistic. Questions arise that need to be answered, such as should there be an

ADN internship in service agencies, or should each ADN student select a speciality area internship prior to graduation?

Secondly, qualified faculty is needed. Montag, at the close of the research project, stated procurement of qualified faculty members had been and continued to be a very difficult problem. At that time 52 percent of the project faculty held master's degrees.

Today, of the 6,036 faculty members employed in associate nursing programs, 69.8 percent of those faculty hold master's degrees. The increase in master's-prepared faculty is excellent. Also, we have seen increased use of part-time faculty which was rare in the original research programs.

Faculty data, however, indicate three facts which are apparent. First, faculty with master's degree in nursing are clinically competent, yet new master's graduates rarely have been exposed to the community college philosophy or to associate nursing program concepts. It is urgent that graduate nurse educators increase collaboration with ADN programs in order to provide master's degree students early exposure to the career choice of teaching in a quality ADN program. As DeChow (1981) in the Thirtieth Anniversary Jubilee Papers says, the effectiveness of a quality product of our programs is directly proportionate to quality faculty.

Another problem is the increase in part-time personnel which is a result of changes in life styles of nurse faculty and their availability. Also, it is in line with the retrenchment era we are in now and which will continue for this decade.

Finally, the new phenomena of competition with nursing service agencies for available master's-prepared faculty cuts into the supply of full-time personnel.

The third area of concern, coupled with use of faculty, is faculty-student ratios in Associate Degree Nursing programs. Montag reported in 1956 that the numbers of students as well as faculty varied among the eight experimental programs, but the average ratio of nurse instructor to students was 1:10. Is that where all this began? Montag, however, immediately followed with the fact that no studies of ratio had been carried out and, therefore, there was no specific information on optimal ratio of students to faculty.

Interestingly enough, Anderson's (1966) report of the four Kellogg state projects involving associate nursing program development in Florida, California, New York, and Texas, showed many instances of ratios higher than 1:10.

The National League for Nursing Data Book (1981) indicated a national clinical ratio in public Associate Degree programs of one faculty member to 10.8 students while in the clinical field, and an national average classroom size of one faculty member to 17.6 students.

The increase, specifically of .8 student per faculty member in the clinical setting over a 30-year span of innovation in teaching, is not a hallmark, and presents ADN faculties with the challenges for creative thinking and innovation during the 1980's. If not, we will face increased program closures, decreases in community college production, or having non-nurse educators or administrators assign complements. Nurse faculty-student ratios are prerogatives of nurse faculty. This is a challenge and spur to research.

A further area needing study is faculty workload activity. In 1981, full-time public institution nursing faculty spent 4.1 hours in class and 15.8 hours per week in the clinical setting, for a total of 19.9 contact hours (NLN, 1981). Ratios, clock hours, and the aspects of unionism in the diverse setting of academia, create issues for administrators and nurse faculty. These must be faced and resolved by participatory governance in health care program divisions and the overall college setting. Perhaps I am questioning a re-evaluation of what we do as faculty in nursing and asking, "Can or should we do all that we do do? Are there other ways of accomplishing the same education outcomes?"

As associate faculty you have been most innovative. Our students are highly motivated. We are presented with new challenges in the 1980's, and the results of a competency-based research project may bring new ideas and new challenges.

The final topic I wish to address concerns ADN graduates. First, should ADN graduates continue to be admitted to registered nurse licensure examination and bear the RN title?

Secondly, are we preparing ADN graduates for the world of work according to nursing service administrators in our communities; that is, graduate nursing service utilization? The third area is the articulation of the ADN product.

Montag's original proposal was that the technical nurse could and should be admitted to state licensure as a registered nurse. Thirty years of program development under current licensure testing demonstrate that these candidates successfully meet paper testing in 75 to 84 percent of first attempts and 98 percent of second attempts. Licensure, as an individual state prerogative, is a political process, meaning that any changes in current statutes requires legislative action.

Rational and political fruitful odds should be contemplated. If, indeed, the nursing consensus agrees to the future of two levels of nursing practice and, given the enormity of caring for patients where quality care must be rendered, licensure as a guarantee for protection of the public must continue for a first level to be admitted to practice.

The National Council of State Boards of Nursing is collecting evidence that demonstrates a difference in the practice of the Associate Degree nursing program graduates and diploma graduates as compared to baccalaureate graduate nursing practice. This may lead to distinction in testing and thus, licensure (Dwyer, 1981).

It shall take a minimum of two more decades, however, to evolve sufficient baccalaureate nursing graduates under whom the technical nurse functions with general supervision. Currently, Associate Degree nurses make up only 17 percent of the total RNs in employment (of 400,000 RNs employed, approximately 20 percent are ADN graduates).

Therefore, I support the continuation of ADN graduates being admitted to Registered Nurse licensure. As we evolve a definition of professional practice which would differentiate professional competencies, I would urge that professional baccalaureate testing be developed in each state, and both licensure and advanced testing be continued within a mandatory system. However, nursing, within professional ranks, must come to a formal consensus before we move to changing licensure procedures which dictate a political process in 50 individualized states with as many political processes.

Regarding utilization of graduates, one finds that through thirty years of progress the two-year college sector, ADN faculty, graduates, and students can only be congratulated for making a quality research project a movement which has not only succeeded in the United States, but also internationally. However, the introduction of ADN graduates into a nursing work force that is still dominated by

other types of graduates, and that doesn't offer quality RN orientation programs for ADN graduates, often places the ADN in difficult situations.

It is rare to find a service institution which has differentiated types of practice or levels of pay by the educational background required for each task to be performed. If I'm not mistaken, we are still functioning in nursing service on the premise that a Licensed Practical nurse's starting salary is about two-thirds that of an RN's beginning salary, and that premise originated in 1945! Must we constantly repeat history?

Articulation

We are all aware that Montag stated ADN programs were to be terminal in nature. I did not buy that philosophy in 1956, nor do I support that philosophy now.

Today, with the average community college student approximately 30 years of age, an age which will increase over the next two decades, no educational process is terminal--meaning that one cannot go on in education in the United States if he so chooses.

The program, however, is terminal in the strictest sense that the graduate receives a degree and is marketable at that level of educational accomplishment. ADN directors and faculty should meet with BSN program faculty in their regions to discuss the process of articulation and attempt to develop a complete articulation process.

Also, the RN student must be made aware that changes in career goals may require additional learning or course requirements prior to full matriculation in the BSN program. Each program, the ADN and the BSN, are vital to our nursing care world. Curricula are developed to meet specific program objectives, not an articulation process, but each of us must be committed to upwardly mobile opportunities.

I have tried to present new challenges to you and report 30 years of progress. To those who say, "Are ADN graduates the heart of bedside nursng?", I'll close with Lucille Knopf's "Study Nurse Career Patterns, 1962-1981," (Knopf, 1983). This longitudinal study of the 1962 graduating classes of associates degree, diploma, and baccalaureate nursing programs and the followup on those graduates from 1963-1981 provides excellent data.

The returns of the questionnaires were outstanding; an overall rate of 81 percent from all program graduates.

The rate of return of the total 15 year collection for ADN program graduates of the 1962 year was 76 percent. Data revealed that, first, the biggest drop in employment or labor force participation of RNs comes between one and five years after graduation, but is proportionately less with ADN program graduates.

Secondly, 15 years after graduation 68 percent, or two-thirds of the ADN graduates, were still employed; 42 percent were employed full-time, and 25 percent part-time. Also, at both 10 and 15 years after graduation 40 percent of the ADN nurse program graduates held staff positions, 15 percent had moved to head nurse positions and 8 percent to supervisory positions.

Fourth, at 15 years following graduation, 23 percent of the ADN graduates reported completing a BS degree. Finally, higher proportions of Associate Degree graduates had been in the nursing labor force nine or more of the first 10 years after graduation than the total study group.

At 15 years after graduation, one third of the ADN study group reported they were in nursing for the entire time since graduation, and another 35 percent, for a total of 68 percent, had worked between 10 and 14 of those 15 years. Therefore, Knopf states that associate degree nurse graduates appear to be the most reliable source of hospital nurses, and can continue to be the heart of bedside nursing.

Although ADN graduates are currently a minority in the nursing service market, our future is bright indeed. Our problems and our progress will be guided by the fact that if we in ADN education and community nursing services set our horizons on the role we do best - that of technical nursing - and we continue to evolve the innovations and creativity we have brought to this nation's nursing past, then we cannot fail to progress in the future.

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COLLABORATION WITH NURSING SERVICE TO ASSURE A SMOOTH TRANSITION OF GRADUATES

by Charlotte A. Tracy, RN, MA

You have heard from Dr. Broderick the story of how St. Mary's competency-based curriculum was conceived and instituted. I would like to describe how the program seeks to maintain its practice-oriented frame of reference in the on-going implementation of the curriculum.

The ability of our graduates to adapt smoothly to beginning positions is dependent on three main factors which are based on communication with nursing service.

First, are the competencies, which you will remember were developed from nursing service input, adequate and appropriate?

Second, did the curriculum remain true to the competencies in the teaching?

Third, was the graduate properly evaluated as having the skill?

In considering the first factor, Dr. Broderick indicated the procedures used to initially identify the competencies. If the proof is in the pudding, as the old adage has it, graduates who have those skills should be identified by their supervisors as adequate practitioners capable of adapting smoothly to the practice setting.

Another concern related to this factor is the continuing adequacy and appropriateness of the competencies. We always need to be aware that the rapid changes taking place in health care may render portions of the competencies obsolete.

St. Mary's Junior Colleges' major formal assessment of this is done by the Nursing Advisory Committee. The members of this committee are representatives from hospitals and nursing homes which employ a number of our graduates and/or which we use as clinical sites. Starting this year, the committee will review for continuing appropriateness, the competencies and the objectives from each course which contribute to the competency.

Another feedback mechanism is an annual study of graduates and an associated supervisor's evaluation which will be done bi-annually. These studies give us information on knowledge and skills our graduates need but do not have.

Between the monitoring of the Nursing Advisory Committee and the Study of Graduates, we are able to evaluate competencies from the perspective of what exists: Is it appropriate? Should it be added?

To date, we have no evidence that changes are needed, but we only have studied two graduating classes, and our Advisory Committee is just beginning its work. Since the competencies are fairly broad statements, it seems likely that basic changes will not be frequent.

Now, we monitor the second main factor: Did the curriculum remain true to the competencies in its implementation?

First, every syllabus relates each objective and content item to the competency to which it contributes. If it does not contribute to one of the competencies, it is not taught.

The nature of our program has such a profound effect on how we implement the curriculum. We have a day program to which we admit one class of 210 persons each fall and an evening/weekend program to which we admit 40-50 persons each fall and spring. The total nursing student population amounts to about 450.

St. Mary's graduates between 130-150 students a year who are then employed mostly by hospitals and nursing homes in the metropolitan Minneapolis area. For a student body that size, many clinical sites are needed. Each year, we use about 15 different facilities including long-term and acute care agencies. There are about 34 faculty, 10 of whom are part-time and teach in the evening/weekend program.

We have an excellent 800 square feet practice lab, with plenty of room for eight beds and counters, cupboards, and sinks. The practice lab coordinator is responsible for all nursing program equipment and supplies, including the beds located in classrooms throughout the college. We hire two faculty assistants for the Practice Lab--one full-time days and one full-time evenings. The college has a superb Learning Center where students use autotutorial media and an Audio Visual Department which can provide almost any service.

Previously, Dr. Broderick described how the competencies were contoured to a conceptual framework based on Maslow's hierarchy of needs. When this was done, decisions

needed to be made about clinical laboratories and the faculty decided on a specific pattern for a number of reasons. They considered that patients providing a specific problem in an area in which the student needed to work were not often available. Also, considered was the need to have a great deal of control as the student begins to practice. The faculty took into account the advisability of moving the student gradually closer to the reality of nursing practice as she/he progresses.

In the first two fundamental courses, the student only descends on the clinical area at the end of a quarter's study. For the next two quarters, in each of four half-quarter courses, the student again goes to the patient only at the end of the quarter (See Figure 5).

The fifth and sixth quarter courses all involve from eight to 12 hours of patient contact per week, and the final course requires 14 hours of clinical practice a week. We call those last five courses "clinical courses" because the student has the majority of theory during the first four quarters and we expect her/him to apply it in patient care during the last three quarters.

In those theory courses, students have from six to eight hours of lab a week. During these labs, we really work on developing skill competencies. Before the end of the first course when the student will care for the first patient, he or she will have passed performance tests on bathing, vital signs, body mechanics, and oral medications, and she/he will have done this with a simulated patient.

The same general principle applies to each of the theory courses. Through the use of performance exams in simulated situations, we ensure the student has at least the basic skills and, thus, reduce our dependency on the availability of certain patient problems. Also, having performed correctly in the simulation adds to the likelihood that the student will be self-confident and competent when she or he has the opportunity to use the skill with a patient.

We maintain our practice-oriented frame of reference in a number of ways. The practice lab obtains procedure manuals from several major hospitals which are used for student reference and revision of performance tests. As soon as a piece of equipment comes into common use in the hospitals where St. Mary's has students, we attempt to secure it for the practice lab.

COMPETENCY-BASED
CURRICULUM STRUCTURE

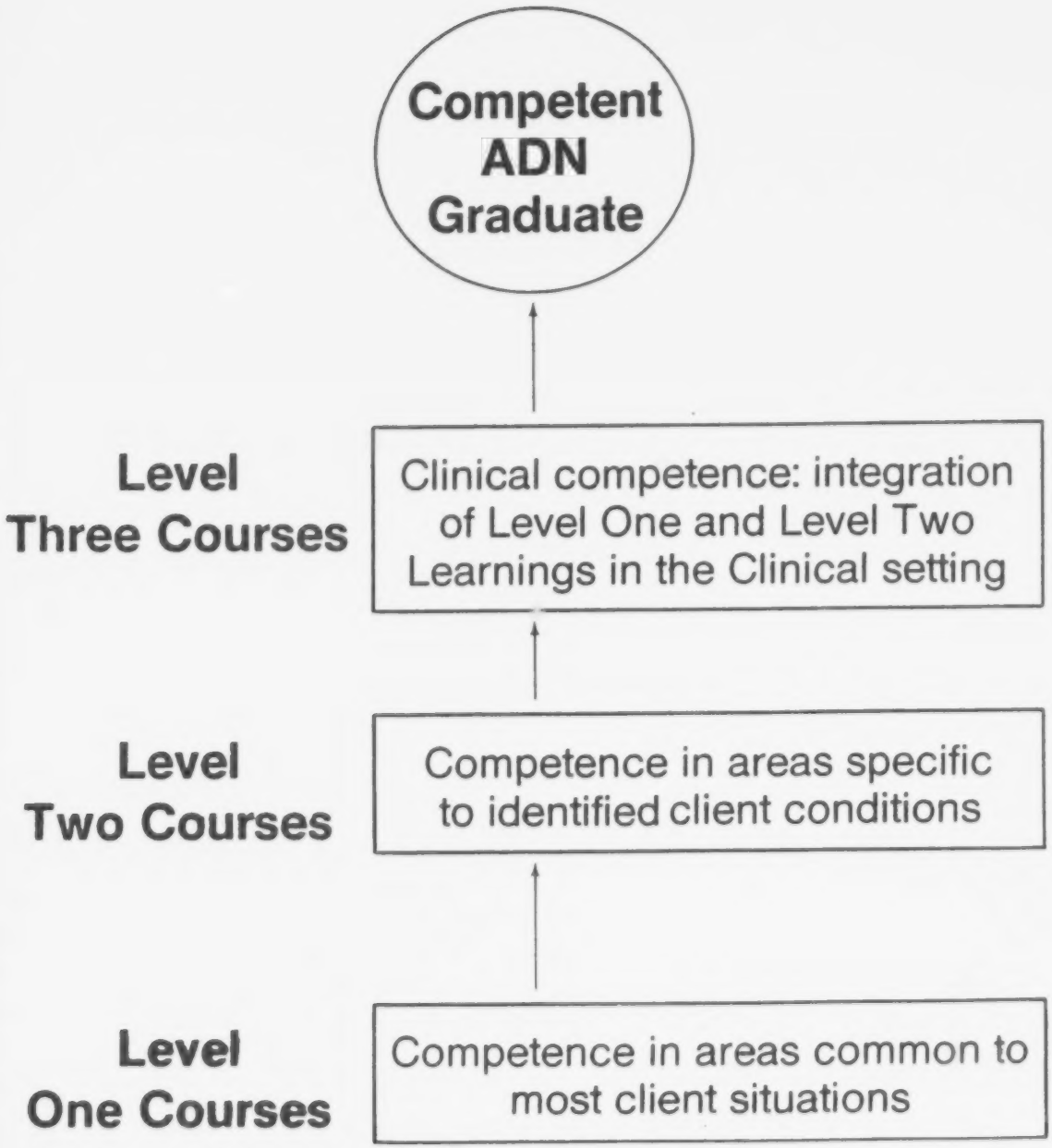
Competent ADN Graduate
Level Three Courses
Clinical competence: integration of Level One and Level Two Learnings in the Clinical setting
Level Two Courses
Competence in areas specific to identified client conditions
Level One Courses
Competence in areas common to most client situations

Figure 5

Our methods are not always very formal. Recently, we secured a used pleuro-vac for demonstrations through the good offices of a student. In fact, students are one of our best resources for learning of new products and equipment since a great many of them work in hospitals and nursing homes across the Twin Cities area. Faculty, of course, also keep alert for changes in practice and we consider these changes as we bi-annually revise our courses.

With the inception of the evening/weekend program in the spring of 1981, it was necessary to expand the faculty by one third. That summer, I hired 14 full and part-time faculty to start in the fall. While the master's degree was prime requirement, next on the list was substantial clinical experience.

In that hiring, I valued some years of staff or head nurse experience or, in the case of the part-time faculty, continuing part-time staff nursing as more important than teaching experience. I encourage faculty to do some staff nursing on vacations or weekends and a fair number have.

It is fair to say I am not satisfied with what we have been able to do in this area. It seems to me it is very important in a competency-based program in technical nursing for every faculty member to have recent and regular experience in nursing service. Practical consideration and labor relations preclude requiring it. Joint appointments would seem to be a possibility, but most descriptions in the literature indicate workable joint appointments are hard to devise.

Positions in our evening/weekend program are actually about one half time. I would like to devise a few full-time positions for faculty who would teach evenings/weekends and spend the remainder of their time in a hospital setting.

These positions might be passed around from one year to the next among interested and qualified faculty. Hopefully, this would result in a very practice-oriented type of teaching since faculty would be likely to focus on the real rather than the ideal. There is the necessity of arranging the fringe benefits, job description, and so forth, with the service facility, but the gains to be derived should motivate both parties.

When attempting to implement a competency-based curriculum, teaching methods should receive careful attention. As previously described, we expect the students to demon-

strate their knowledge and skills before going to the patient's bedside so we need methods that will help the student develop psycho-motor skills and at least some judgment without practicing on a patient. We do, of course, as most schools do, use demonstrations and practice.

It is necessary for us to assign a larger portion of our budget for equipment and supplies than if we had a different type of curriculum. The manikins we use can do almost everything but talk and they cost $2,000 each. For example, if we expect the student to practice and demonstrate skill in traction manipulation, then we have to have the necessary equipment in amounts sufficient for the number of students. For next year, we have budgeted $23.50 per student in equipment and supplies.

We also have developed simulations which are a step nearer reality than demonstrations. An example is our pre-op simulation. First, a number of profiles were developed for patients who were scheduled for surgery and charts for these patients were constructed. We set up two large classrooms as four-bed rooms with a room inbetween arranged as a nurses' station. Eight students at a time report with their partner who are oriented to the patient role they will play. Then the students who are acting as nurses receives reports on the "patients" whom they must prepare for surgery.

Students may be required to call the lab for unfinished lab work, give pre-op hypos, check valuables, and do all the steps required in pre-operative preparation. Instructors monitor the process and take action as necessary. For instance, as I was observing one day, the student gave the pre-op hypo and left the room without raising the side rail. The instructor went to the "patient," gave her some directions and when the nursing student returned, she found her patient on the floor. I'll bet that student never left another side rail down!

Thus, the simulation presents a very controlled situation where the student can experience some of the consequences of his or her actions and begin to develop judgment without endangering or discomforting a patient. This is also a way for students to demonstrate their readiness for clinical practice.

We regard our clinical lab times as occasions for learning, and do not evaluate students on the units (with one exception which I will describe later). We do put a "floor" under their practice so that we have a mechanism

for removing the unsafe student, but otherwise, the clinical labs are used to develop competency only.

We expect these competencies to accumulate. Students go from meeting one basic need in the first theory course to meeting several basic needs in the first clinical course, and finally, to meeting several basic needs of three or four patients in the last course.

This progression has a direct effect on faculty-student ratio so that in the first two courses it is 11-to-1; in the other theory courses 9-or 10-to-1, and in the clinical courses, 8-to-1, since as many as 20 or more patients may be involved.

As indicated earlier, because St. Mary's has a large student body, we use a number of health care facilities. In the selection of sites, we try to avoid one-purpose units with some exceptions. For instance, in our clinical courses, we try to put students on general medical or surgical units where they can practice their skills with a number of patient problems rather than an eye/ear unit or a gynecology unit.

Like nursing programs everywhere, we compete for clinical space with other schools in our area. The use of performance testing and simulations as preparation for the clinical area puts much less strain on the units. This is an advantage within the program since units may be more available for other courses and perhaps may be of some assistance to other schools in our area since every course is not using clinical units every week.

Finally, since the students have been performance tested and have participated in simulations, it means we put students on the units, who are more competent a fact appreciated by nursing service.

We do not always get our ideal clinical units lately, especially since three major acute care units upon which we relied closed in the last year. We are finding that as acute care beds are lost, the acuity in the long-term care facilities we use seems to be increasing.

A dilemma we are just beginning to discuss with our Nursing Advisory Committee is whether we should begin to slant our curriculum toward long-term care since the majority of positions may be open there. The uncomfortable fact is that in a two year program, it is not possible to do everything. If we provide more practice in nursing homes

and rehabilitation centers, we provide less time in acute care and students will have correspondingly less skill in such areas as I.V. management and immediate post-operative care.

In summation, St. Mary's attempts to keep the nursing curriculum practice-oriented and true to the competencies required by nursing service, through the choice of faculty and clinical sites we make, our teaching methods, by working to keep up-to-date, and through the design for progression in skill development.

I said the third factor for insuring a smooth transition was making sure the graduate actually has the knowledge and skills listed in the competencies. We are all familiar with the student of whom it is said, "She really knows her theory, but she surely can't apply it." Or conversely, "She doesn't do well in the classroom, but she shines when it comes to caring for patients." Depending on the grading system used in a school, both of these students may actually graduate and, if the latter passes State Board exams, both enter into practice.

A competency-based program must have a system to insure that the individual who has a good theoretical base is also able to apply the theory and that the person with a poor theory base is not allowed to proceed solely on the strength of his or her actions in clinical lab. We use a lot of faculty time and energy assessing and improving our evaluation system.

To insure the minimum knowledge level, we use mastery exams (paper and pencil tests) in which the student must achieve at least an 80 percent. If they do not, we provide a chance a few days later to try a second version of the test. If they are still unsuccessful, they must repeat the course. We do not average grades within any course. Therefore, the student cannot offset a deficiency in, for example, medication administration, by doing very well in content on vital signs.

This system does contribute to test anxiety since each test becomes extremely important, and faculty this year are focusing on ways to reduce the stress.

Each of the courses in the first four quarters has a number of associated performance tests which require the student to demonstrate a skill or a cluster of skills. Students are given a tool for each test at the beginning of the course. These tools are similar to the CPR test tool

with which many of you are probably familiar. Students view demonstrations and practice the skill until they feel proficient. They can be tested on the skill up to three times. After that, they must repeat the course if they wish to progress.

We work constantly to improve uniformity and consistency among the up to thirteen faculty who may be testing the same skill. After four years, we are getting ready to revise and slim down the tools so that only those behaviors we all agree are essential will be included in each performance test.

You might be especially interested in how we test skills in Higher Needs, our psychiatric nursing course. Faculty develop patient profiles and then program students who are hired to play the part of patients. Students who are being tested interact with the "patients" and are evaluated according to a set of pre-established criteria. For this performance test, we use two instructors since it is potentially more subjective than most other performance tests. The pre-operative simulation mentioned earlier was for learning only, but we use simulations for testing too.

In our course on Fluid Balance and Renal Elimination, there is an I.V. simulation in which the student must deal with an I.V., a catheter, and various fluid-related problems in a programmed "patient." This particular simulation is highly indicative of student ability to organize themselves when they begin giving patient care in the clinical areas. That is, students who have difficulty with the I.V. simulation have trouble in the clinical courses.

I mentioned earlier that there is one occasion when we evaluate students in the clinical laboratory. This occurs in the last quarter and is called the Clinical Performance Exam. Students must pass this exam to receive credit for the course and graduate. The test takes a maximum of four hours and is conducted with one patient.

Much of the tool focuses on the competencies. To orient faculty and students to the examination, we prepared a video tape showing portions of an examination. We also use a "rater" training session to ensure a minimum degree of consistency among the ten or more instructors who will be conducting the exam.

Our authority in developing this exam was Dr. Carrie Lenburg who assisted in developing the New York Regents external degree program, particularly the performance evalua-

tions, and who is the author of the book Clinical Performance Examinations Development and Implementation published by Appleton-Century-Crofts.

After administering the clinical performance exam to one class, the faculty were dissatisfied with the criteria and scoring system, so Dr. Lenburg was invited to present a workshop to faculty in the spring of 1981. We then revised the tool for the examination according to her suggestions. Faculty pronounced themselves much more satisfied with the revised tool last spring but the art of clinical performance testing is a young one, and I expect more revisions in the future.

Students are permitted two attempts on the clinical performance test. In the three years it has been administered, we have identified one or two students each year who lacked the basic nursing care skills we require for graduation. I believe these are students who would have graduated if we had used any other evaluative method than clinical performance evaluation. And they would have been the kind of graduates who cause nursing administrators despair. At least one of them would have passed State Board exams--he did very well in the theory aspects of the curriculum.

A further method of evaluating whether students actually have the competencies is through the Study of the Graduates. So far, we have analyzed the first two classes to graduate from the competency-based curriculum and found a very high level of job satisfaction. In most areas of competency, graduates were able to perform with minimal assistance during the first six weeks of employment. Overall, the results are an improvement over pre-competency-based classes.

For administrative reasons, the associated supervisor's questionnaire was not administered for the classes of 1980 and 1981, but we expect to do this in the study of the 1982 graduates.

In summary, the methods St. Mary's uses to ensure that the graduate was properly evaluated as having the skills, include mastery and performance tests throughout the program culminating in the clinical performance exam. In addition, we conduct studies of the graduates of each class.

I believe it would be useful for this group to hear some of the effects this type of curriculum has had on the school. First the approach required a larger, better stocked practice lab than was needed with a conventional

curriculum. More equipment and supplies of all sorts were needed for testing and student practice.

Faculty workload increased because of the performance testing time. We do some, but not the majority, of skills testing during scheduled laboratory periods. Performance tests can take from ten minutes to more than a half hour and some students require three attempts. It was no longer appropriate to look at faculty workload in terms of laboratory and lecture hours only. We devised new formulas to evaluate workloads and insure fairness.

Also we found a need for more space for testing. At first, faculty were conducting some performance tests in their offices which was extremely inconvenient. Now we have beds and sinks in a number of rooms besides the practice lab so that testing can be conducted in appropriate locations.

Future directions for smoothing the transition to nursing practice include several possibilities. In spring of 1982, we began discussion with Fairiew Hospital about working together to develop a course founded on their competency-based graduate internship program. The course would be offered by the college during spring quarter, and graduates who were to be employed at Fairview would take the course for college credit.

The hospital would receive reimbursement from the college for the participation of their instructors, students would be eligible for full pay sooner after graduation, and the college would profit from the existence of the course.

Since Fairview found they had no openings and currently, had a fairly stable staff, we have not proceeded in dove tailing their program with ours.

Also, our sister institution, St. Mary's Hospital, has developed competencies for nurses at the end of one year of employment. We want to work with them to assess how our competencies match theirs since they hire a fair number of our graduates.

We would like to "fine-tune" our two sets of competencies and had, in fact, applied to be a demonstration site for this ADN competencies project. While we were not one of those chosen, we intend to continue working with St. Mary's Hospital to develop new ways of sequencing and implementing the competencies of our two institutions.

Our final plan concerns the need articulated by many nurse administrators for new graduates to have more time

prior to graduation functioning in a semi-staff nurse role. Some of you may be familiar with the concept of techno-term. The word describes a time at the end of the nursing curriculum when students are in the patient units for at least one week of eight hour shifts, and preferably two to three weeks, so they can experience the various shifts. This kind of education is prohibitive in terms of faculty costs unless it can be done with assistance from the clinical agency in terms of preceptors. Where nursing staff is willing and able to take primary responsibility for student practice and one or two instructors roamed the hospital as resource persons and trouble shooters, I have seen it work well. I feel that this sort of end experience would put the final polish on our graduates' competencies.

These are only three of the multitude of ways to collaborate that nursing service and education are exploring.

In the last quarter century, we have seen education move from domination by nursing service as in the hospital-based diploma schools to an almost total separation when nursing education planned its curricula without much reference to the needs of nursing service. Now is the time of reconciliation when education and service work together to produce nurses who will be a credit to our joint efforts.

COLLABORATION AMONG ALL LEVELS OF NURSING EDUCATION AND NURSE EMPLOYERS

by Peggy L. Primm, RN, PhD

The topic I am going to address is the need for continued collaboration among levels of nursing education and levels of nursing practice, and I cannot emphasize this need enough.

Competency-Based Education (CBE) in "The Associate Degree Nursing: Facilitating Competency Development" project refers to the educational process of preparing individuals to perform the specified task of an occupational profession; performed under the conditions present in the real world and at the level of proficiency required of workers on the job.

The goal of such education is to allow students to leave their educational programs having demonstrated they are competent entry-level practitioners. Although this may always have been the goal of education, Competency-Based Education requires verification within the clinical service settings prior to graduation instead of relying on expectation or educated guess.

That's a big shift in faculty commitments, as it will require competency-based performance exams prior to graduation and a solid indication of long-term learning. Teaching it once is not enough. Long-term learning should be assessed.

CBE is not limited to the instruction and evaluation of manipulative skills only. It's true that performance is the primary source of evidence in the achievement of competence, but in addition to skills, each component of competence includes ability, knowledge, judgment, attitudes, and values. Since the actual job requires all of these characteristics and not just a few, performance evaluation and CBE programs must be carefully structured to assure that all components are demonstrated and evaluated.

A performance test should require that a student possess and demonstrate the knowledge, abilities, attitudes, and values, as well as manipulative skills necessary for competence. Competency-based nursing education programs, therefore, must have curricula firmly founded upon tasks and roles which are developed and agreed upon by both service and education.

When nurses went to hospital schools, their employment was an extension of their training and, therefore, little orientation was needed. As we look at the literature to-

day, however, a common criticism of associate degree and baccalaureate programs is that the graduate requires too much orientation. Some of this problem is due to the lack of a common language by which we teach students and ask them to practice.

If we have a conceptual framework that is written in jargon that the staff neither uses nor understands, how can faculty evaluate students as competent? Indeed, if we have not defined the roles for which our students should practice, how can service evaluate them as competent? So, our first challenge in Competency-Based Education is identifying the role for which students are to be prepared.

There is a need for collaboration between nursing service and nursing education in order to plan for the transition from curriculum to service. Until we have an expectation of the role into which students should be moving, we cannot create that orientation.

In addition, the competency-based job description should be the end product of the orientation. Therefore, we have a span of time starting with students initially entering into an educational program, meeting prepared program objectives, testing for competence prior to graduation, moving into an orientation program which takes them from education to service, and culminating in a job description in which they can be fully competent. Most importantly, this might move service and education into a common language and reduce the dissidence.

To reiterate, CBE focuses on the role in which students should practice. This regional ADN project will focus on the expectation that the student shall be fully competent at the level of defined practice. It will utilize competency-based statements and expect all graduates to meet each of the competencies. As you read the literature, you will find that some places require the student to reach a specified percentage of certain competency statements. Other authors indicate a one hundred percent mastery of certain competencies is required. In the Midwest ADN project these competency expectations will be guided and uniformly applied.

The need for collaboration between practice and education was not apparent when nurses only had diploma schools because both service and education formed one unit. It was very difficult not to teach a student according to the hospital's philosophies because the hospital nurses did the teaching. Students, however, were assigned to experiences based on patient or hospital needs rather than objectives.

As we moved away from that kind of an educational program, we moved further away from talking with nursing service.

When the university-based programs were developed, many of the changes were in reaction to the diploma model, and as a result, the hospitals found themselves totally separated from the educational programs. Faculties moved into the university and there was no cross-communication on committees. Also, there was no collaboration on determining what's expected in practice. Total separation occurred.

When Dr. Mildred Montag put Associate Degree programs into place, she did so to create a worker for a specified range of practice. She expected that practice then to be available in the employing agencies. However, the evaluations of the Associate Degree programs were designed to show that those graduates were as good as, equal to, and as effective as the diploma graduates. We got into a pattern showing that everyone was the same instead of showing differentiation.

People who read Montag's and Matheney's writings all recognize that they expected differentiated practice from the beginning. Montag, however, did not (even in her own project) set up collaboration among nursing education programs. Although the program was theory-based, they did not set down guidelines as to how those programs would be different than the university-based or the diploma programs.

It was assumed that faculty would be teaching in a community college, and would understand the philosophy, agenda, and curriculum. As a result, the program would be different. This didn't always happen. If in 1951 we had started collaborating on the differentiation of nursing practice for which we were creating Associate Degree and other program graduates, we wouldn't have to be here today.

When the first Associate Degree nurses graduated, they all sat for the same boards once they had satisfied some state requirements. Again, they showed lack of differentiation and this continues today. Some of the emotional responses to a call for differentiation often come from those within the programs who worry that if differentiation occurs people won't hire their graduates.

I do not believe that would happen. When we begin to differentiate, institutions will hire graduates based on the need they identify in their agencies. Unless the baccalaureate programs begin to work toward collaboration, the associate degree programs will have ADN roles defined and

hospitals will start to hire for these roles. The baccalaureate programs then really will have their jobs cut out for them. I do believe that the baccalaureate programs must be involved in comparable differentiation activities.

Faculties tend to be even more isolated now that we have unionization, increased workloads, and a lack of part-time jobs. In addition, we have tighter budgets and cannot share as many of our inservice programs. Tuition reimbursement is waning, and as a result, faculty and staff are not mixing in advanced classes. In short, our faculties and service agencies are becoming more isolated.

It's easy to write in the literature that you should have faculty on the hospital committees and hospital staff represented on college committees, but most faculties and nursing staff are already over worked. We often put the directors of our nursing programs on our advisory committees, but when they only meet three or four times a year there is really not enough time to develop collaboration.

If, indeed, we are producing graduates to meet health care needs we must collaboarate with those people who hire our graduates and develop the job description. We are allowing the gap between education and service to increase if we do not coordinate our job descriptions with the outcomes of our programs. They do not have to be exact matches, but it is a challenge we should address.

If educators ask nursing service what competencies should be taught, those comptencies should be reflected in the job descriptions. There are both formal and informal job descriptions in the agencies. The formal ones are the ones given to the nurse when she is hired. Unfortunately, they're usually pretty rigid: You come at a certain time, report to a certain place, stay until a certain time, and do what is expected of you in that time and place. This has been a result of the movement toward nursing specialties, and job descriptions tend to be made up of those things that are left out.

Agencies that have moved to process-based job descriptions are one step ahead of others, and moving toward competency-based job descriptions. It is the informal job descriptions, however, that evoke criticism that graduates in general don't measure up, that associate degree graduates don't orient as fast as the diploma graduates, or the baccalaureate graduates just don't fit in as well as associate degree graduates. These are informal evaluations usually.

Unlike most hospital administrators, Kate Schejbal, RN, PhD, Vice President/Director of Nursing Services, St. Joseph's Hospital, Kirkwood, Missouri, has data on how long it takes and what it costs to orient graduates of different programs. If someone could show me my graduates take twice as long to orient, I would certainly respond--and prior to graduation.

The question of differentiated job descriptions, will not arise just between associate degree and baccalaureate graduates in this grant. The next logical step should be to determine the difference between RN's and LPN's. In reality, what's the difference between RN and a LPN in a job description--I.V.'s or charge? What is the essence of nursing that the LPN's cannot provide and that we are teaching our registered nurse students? If indeed, the hospitals are struggling with that differentiation, then differentiation among levels of registered nurses will be very difficult.

So the challenges we've put to you here in these last two days are not something that people can solve in the next thirty minutes or thirty days. Indeed, it will take a number of years of collaborative work.

Economics often decides whether or not there will be substitution of workers. If RN's are not available, LPN's tend to be hired. When the RN's are available, such as now, LPN's have difficulty getting work. This seems to indicate there is something in that informal job description other than I.V.'s and charge that needs to be defined. If we can take that as a basis for a non-competitive and unemotional response among our group, then why can't we do the same thing for associate degree and baccalaureate graduates? It should not be any more threatening and or anymore emotionally-based.

When we talk about collaboration among levels of education, we come to the classic dilemma of articulation for upward mobility. If you can talk about competencies that are common or different within a curriculum, can't you then talk about completion program content that is not more of the same?

If there's no differentiation in the orientation for graduates between the three kinds of RN programs, we have another need for collaboration. The criticisms in the literature indicate orientation really is designed to create less of a difference in the graduates rather than utilizing their full potential.

We need to look at our orientation programs. Are they differentiated by the skills the graduates should bring? Are they differentiated by the skills you expect on the unit or are they differentiated by who's teaching them? If the skills are differentiated for orientation, they should be based on the unit objective, the type of care expected, and patient goals that are mandated for that unit, not based on who is teaching the course.

As I work with faculties in Competency-Based Education, I try to assure them that their courses should be based on the goals and objectives of the educational curriculum, not on who is teaching the course. That is not an invasion of academic freedom. Regardless of how prepared faculty members are, they are hired to teach the course that's been approved in the curriculum committee. How they teach it, what lecture method they use, or what audio visuals they use, may or may not be something that they can use creatively in that particular program.

Competency-Based Education is sometimes critized as rigid and stifling creativity. This does not have to be true. If you have competency-based statements as outcomes of courses and curricula, you can use all the creativity you possibly have to get there. Also, it allows for student creativity because it presents the written objectives right up front before the project begins, and they can use all of their creativity, to accomplish the end product.

So, Competency-Based Education is not necessarily lock-stepped. It is not just skills and it does not stifle creativity. However, it takes a lot of time and a lot of effort. St. Mary's Junior College has given a good overview of what they have done in curriculum design.

There is no doubt that curriculum design is hard work. It takes negotiation rather than emotionalism, and it takes perseverance. Anyone that looks at Competency-Based Education will have the challenge of first defining the role for their graduates. Indeed, if our graduates were already functioning in those roles, we wouldn't have to define it now.

There is need for collaboration among all levels of nursing education and all levels of nursing service expectations. I believe that one of the major problems with nursing today is that our programs are created in isolation. Curriculum design belongs to the faculty or the program and is based on their beliefs of nursing. However, we are preparing students for employment and that should, in-

deed, affect what we are teaching. If educators continue to create a curriculum without reference to practice, we will continue to have the split. Until our programs can begin to talk with one another and share the strengths and the successes, each one of us will be trying to re-invent the wheel alone.

At this conference we've heard an overview of how to go about implementing Competency-Based Education. St. Mary's is very open and has shared their work and progress. They have offered to help the teams.

I think the most important thing that can happen today is the networking among similar programs: We have a concern, you have a solution, let's talk about it; we need support and you've got some emotional support to give, let's talk about it, however, in a non-competitive way. Nurses tend to compete rather than support one another. I do not know of any economic times in which it has been so important that we support one another. And I do not know of any other times in which it has been as important that we define our role in our hospitals and other employing agencies.

Hospitals are changing, and our students will have to adapt. How many of our faculty are really aware of what nursing service administration is going through? How many faculty really understand the retrenching that is going on? How many times has the hospital in which you do your clinical shared this retrenchment plan with you? Has it told you that, they are not "going diploma" or that they are not going to take a certain action in a crisis situation?

Does your faculty know what's going on and can they reassure the students? In a retrenchment, the staff is highly anxious and the students pick up on it right away. It doesn't help their performance either. Collaboration can resolve or prevent some of these problems.

If you have a hospital in retrenchment and a college that doesn't happen to be in retrenchment, we can supprt one another and the other way around.

Just as many hospitals are projected to close over the next few years, as are colleges. Enrollment in many colleges is expected to drop sharply. The community collees are not expected to be hit quite so hard, but the complexion of the students will change. There will no longerbe as many 18-year-olds, but there will be more adult learners.

CBE, where expectations are presented to the learner along with all the content taught to reach these competencies, is a perfect model for adult learners. You do not teach that which does not contribute to the competencies and that's exactly what an adult learner wants.

To summarize, this project will continue to work with CBE as we have defined it. We will have one workshop at each of the four demonstration centers at the end of next year and two workshops at each demonstration center in the third year. These will be open to people in the region. Also, it is another way in which you can participate, share, and grow with us in this project. Of course, there will be another regional conference at the end of the grant to summarize and share the outcomes of the project.

In the meantime, you will hear more about the grant through MAINlines and in other publications.

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